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ABSTRACT

This paper analyzes the planned and unplanned and external and internal forces that influence curriculum. Three questions guide the analysis of curriculum change in American schools during the 20th century: what forces changed curriculum? what forces maintained stability? which forces are amenable to planned change and are appropriate candidates for federal research funds? A review of literature on classroom environment in the late 19th and early 20th centuries indicates that only marginal changes occurred in teaching. External and internal forces which brought stability to curriculum are identified as socialization, national performance tests, educational legislation, and the conservative nature of teaching. Federal research funds should be spent to provide policymakers with more information to help them distinguish between patterns and transient happenings. Once this information is available, policymakers can determine which areas can best be influenced by funding. Findings indicate that although schools are vulnerable to social change, which leads to curricular changes, these changes affect content and theory more than instruction and classroom environment. Curricular change and stability over the last century are explained by organizational traits of schools as independent units and as members of a larger system, the traditional nature of schooling as a compulsory process, the nature of classroom instruction, and teacher characteristics. Further research is needed to explore reasons why teachers have been and remain the source of both curricular change and stability. (Author/DB)

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DETERMINANTS OF CURRICULUM CHANGE AND STABILITY, 1870 - 1970

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ABSTRACT

This paper asks three questions.

- What forces changed curriculum?
- What forces maintained stability in curriculum?
- Which of these forces are candidates for investment of federal research funds?

The description and analysis covers schools in the last century and concludes that the primary determinant of curriculum change was social change, i.e. broad social, economic and political movements. Secondary determinants of change such as legislation, court decisions, influential groups (e.g. publishers, foundations), and persuasive individuals acted as mediators between the environment and schools. They softened, selected, modified and promoted different, less potent versions of social changes jolting the culture. Many of these groups lobbied social impulses into legislation. Many of these groups translated national hopes into practices. Many of these groups sold curriculum change.

Vulnerable to each wave of social change over the last century, schools were easily penetrated. What made schools involuntarily receptive to entry were a set of organizational traits (blurred goals, uncertain technology, etc.) that made schools vulnerable to every gust of change that blew against the classroom door. These primary and secondary determinants of change appeared formidable.

To verify their impact, a brief analysis is made of whether or not these changes penetrated the various levels of curriculum, in particular, the classroom.

After reviewing the sparse secondary literature on classrooms in the late nineteenth and twentieth centuries before and after major school reform efforts, the tentative conclusion, is that only marginal changes, at best, occurred in how most teachers taught, what students did, and the nature of classroom interplay between the two. Such a conclusion led to the question of why in an organization historically vulnerable to change, classrooms seemed invulnerable. The question required an examination of those forces that determined stability in curriculum.

External and internal forces that brought continuity to curriculum are identified. The primary determinant that may explain puzzling continuities in curriculum was the socializing functions of schools. In addition, there were a number of external instruments such as accrediting agencies, national tests and legislation that reinforced school socialization and thereby strengthened continuity in curriculum.

There were also internal forces that stabilized curriculum. School organizational traits such as rationality and loosely coupled structures, teaching as an occupation and the classroom as workplace help explain those stubborn continuities and the seeming invulnerability of classrooms to change.

Having roughly mapped out the various forces that determined change and stability in curriculum, the third question is turned to. Because the state of knowledge about classroom and schools as organiza-

tions is so splintered and ambiguous and because federal policymakers need to invest carefully and sensitively into curriculum, my first candidate for research is for policymakers to have more conceptual and contextual maps before them that distinguish between patterns and transient happenings; that separate imperatives from impulses; that describe forces schools can and cannot influence. Such maps of change and stability in school organization, instructional technology, teacher use of materials, classroom management techniques, culture of teachers in schools, etc. should be done historically. Policymakers would then have before them analyses which are sensitive to issues as they have developed over time. The prime reason for such maps is to determine what parts of the educational landscape are susceptible to planned change. Such maps may lead policymakers to the conclusion that very little can be tinkered with and the narrow areas that can be influenced should receive most of the available funds.

My second candidate flows directly from the analysis in this paper. Some tentative conclusions are:

- Schools are vulnerable to social change.
- Social change, softened by mediating forces, turns into governance, organizational and curricular changes.
- Curriculum changes impacts far more upon theory, courses of study and content rather than upon instruction and classroom life.
- Basic processes at work in the classroom, including teaching and student responses, have a potent stability that resists intrusion.

These tentative conclusions drive one unrelentingly to the simple observation that we need to find out more reliable information about, for example, how teachers teach, deal with children, relate to time and space, cope with unpredictability and uncertainty, and seek satisfaction within school and classroom.

The teacher has been and remains the source of both curricular change and stability. If anything more constructive and positive is to happen with children and schools, we must have far more dependable knowledge about what goes on in schools. There is a small body of research that points to the limited nature of change that can be introduced into classrooms and the pivotal influence of the teacher in determining the pace and extent of that change. We need to know more.

INTRODUCTION

The notion of change fascinates educational researchers and practitioners. The spicy tang of power, buried within the idea of intentional change, has lured many writers into searching out how it occurs, why it seldom turns out as anticipated and what can be done to improve the process. Curriculum, one version of planned school change, has been no exception to that lure.

The subject of this paper is an analysis of forces, planned and unplanned, external and internal to school systems, that influence curriculum. Three main questions guide the analysis: In the last century,

- What forces changed curriculum?
- What forces maintained stability in curriculum?
- Which forces are amenable to planned change and become appropriate candidates for investment of federal research funds?

Why focus upon the last century? While the present public school system dates back to the early part of the 19th century, the familiar school organization that we see daily had been built laboriously by reformers and schoolmen in the last quarter of that century. School systems marked by corporate governance, instructional and administrative specialization, and diversity had taken shape by the 1870s. So set were the familiar patterns of how schools are operated, what

is taught and the range of well-known instructional approaches.[1]

The perspective, then, of a century offers an opportunity to analyze forces that influenced curriculum within the context of a relatively constant organizational structure.

Setting the time limits for the analysis is easy compared to defining curriculum. Theorists have developed a separate literature on the various meanings of the word. That in 1976, the National Institute of Education (NIE) as part of its effort to gain public advice on a variety of curriculum issues published a paper that offered at least six different meanings of the word only underscores the term's ambiguity.[2] Because any definition contains a writer's notions of what changes can be made and where intervention is possible, some boundaries to the term are essential, if, for no other reason, than to signal readers my views of what changes and intervention opportunities are available.

In this analysis, curriculum will refer to intentional experiences within the school planned for students. This includes what is taught (embracing, as well, theories that determine the content), how knowledge, skills and attitudes are taught and the materials both teachers and students use. This narrow definition excludes the hidden curriculum, school culture, home and community influences; it sharply limits the scope and potential of changes within schools, but does so ealistically, in my judgement. This definition, of course, should imply that what is taught is necessarily learned.

Such a limited definition is rooted deeply in a century of ool practice extending back to such 19th century curriculum-minded erintendents as St. Louis' W. T. Harris and Boston's John Philbrick well as early 20th century curriculum theorists as John Franklin

Bobbitt and Frank Snedden.[3] Rooted as it is in the past, my definition would be familiar to practitioners, theorists, parents and students today, although there would be no consensus among them upon it as the best definition. Because this limited view of curriculum is familiar, well within traditional professional expectations of both university professors and school practitioners, because it focuses upon what teachers do, and because this view of curriculum offers some modest possibilities for direct influence and change--for these reasons, it was chosen.

There are, however, additional reasons for its choice. This restricted meaning of the term permits mapping, albeit crudely, the levels of impact that external and internal forces have upon change and stability of the curriculum. Distinctions can be drawn between different degrees of influence upon theory, content, instruction and materials. Moreover, distinctions can be made between forces that require much or little change in teacher behavior.

Consider, for example, the metaphor of a hurricane sweeping across a sea. Fifteen foot waves on the turbulent surface, roiled waters a fathom down and calm on the ocean floor. As tricky as metaphors can be, compare, for a moment, that hurricane to any recently heralded theory of curriculum.

While professional journals resound with pro and con arguments on the theory, while letters to the editor and sharp rebuttals get dipped deeper in hot acid, while books are written and reputations made, while convention programs are filled with slogans from advocates and skeptics of the theory and while professors of education propound that construct to their students--while all that is happening, most

publishers continue producing texts uninfluenced by the theory and most teachers teach content with methods that are untouched by controversy, slogans, journal articles or convention programs. I use this metaphor less for its accuracy of description and more for its illustrating the distinction between theory, content, materials and, most important, impact or lack of impact upon teaching behavior.[4]

These, then, are the boundaries of the analysis. Forces affecting and determining both change and stability in curriculum, as defined here, including the different levels of impact, will be scrutinized over the last century.

THE SETTING: 1870-1970

By the 1870s, the structure of corporate school boards, superintendents as experts, principals as administrators and teachers as all-purpose agents of society was in place. Nailed down desks, box-like classrooms off main corridors, separate grade-levels, textbooks and blackboards were familiar land marks on the schoolkeeper's horizon. In David Tyack's felicitious phrase, the "one best system" had been installed.[5] Polishing, refining and sharpening would, of course, occur but the key structures of the modern school system that we know today had been installed sufficiently in cities by the closing decades of the nineteenth century to capture popular belief and developing professional pride as the ways schools ought to be.

Familiar as these elements were then and now, the century has seen enormous changes in, to list only a few, numbers of children who go to school, how long they attend, dollars spent, varied curricula, increase in special personnel buildings and, probably most influential, the expansion of the school's role as an institution.[6]

Remember these were the years when waves of immigrant children spilled over classrooms, when state compulsory attendance laws were enacted, when two world wars, a depression and a crusade against poverty penetrated schools' daily operations. Nor can the post-World War II, massive rural-to-urban migrations that inundated unprepared Northern and Western schools be omitted. For school practitioners, it was a century

of enormous growth and change.

While there were sharp regional differences (especially in the South) in who attended school, how much was spent and quality of instruction, few would question the dramatic growth of American schools.[7]

Statistics would only reinforce the same pattern of enormous physical growth and expansion of schools. More students, more teachers, more administrators, more curricula, more buildings--more of everything. What numbers wouldn't show, however, is the growth of popular and professional conviction in what the school can and should do.

From the antebellum narrowly-defined role of inculcating minimal literacy, basic values and an appreciation of God and country, successive waves of lay and professional reformers expanded that role to one of the schools as a child welfare agency.[8] "Are we to have the schools ignore the larger work of education and remain...an inflexible missionary of the three R's?", asked one early 20th century reformer. "Or is it," he continued, "to take, as its responsibility, the entire problem of child life and master it?"[9]

In subsequent decades answers to these questions were found in school play areas for the cramped child, school-distributed clothes for the ragged, hot food for the hungry, school-provided medical care for sick, vocational training for the unskilled, patriotism for the foreigner, driver and sex education and anti-drug, alcohol and tobacco instruction for the unwary teenager.[10] The school was now to integrate all the splintered functions urban life and industrialization previously had shaved off from family, work and neighborhood.

Both the growth in the school's role and the facts of physical growth resulted from forces inside and outside the school. Inevitably

as the school changed, so did curriculum in the last century. I turn now to examine how some of those factors determined curriculum and suggest some possible explanations for that influence.

Before examining each of the forces that determined curriculum change and stability, a few caveats are in order. First, my list of forces is not comprehensive. There are innumerable factors that are associated with change and stability that are ommitted here. And for good reason. "Most of the studies cited," a reviewer of curriculum change noted, "fail to show a linkage...between forces affecting society as a whole, education as a field and curriculum as it is actually found in the classroom."[11] Choices have been made to include those factors that not only are associated with curricular change and stability but also where sufficient evidence suggest a cause-effect relationship at some level of curriculum, as defined here.

Second, while the factors of change and stability will be isolated and examined it is purely for analytical purposes. The world is too complicated, too unknown, too messy for me to suggest that what is presented here is the way the world is organized and runs or is a total explication and description of a complex interplay between schools and culture, within schools, or even within a classroom. What is presented here is one person's attempt to partially answer some puzzling questions on curricular change and stability.

Third, no single theory determined choices. The same writer cited above noted in his research review that "no apparent theory" guided the studies he examined.[12] Sadly, there will be "no apparent theory" here either. Limited and uneven basic knowledge on teaching, learning, school organizations and a host of other curriculum-related

issues explain why theories are still being generated in the field. In effect, what exists now are theories and notions floating about, unanchored by reliable knowledge, seeking additional data. Moreover, among existing theories, few explain and predict much less fully describe what happens in schools and school systems. Finally, as an historian I find sources for interpretations in existing theories drawn from various disciplines more congenial than any ideological marriage to a single theory.

Thus, I do have a perspective but it is drawn from various theories anchored--I hope by data--about how schools function both internally and as part of larger organizations. My affection for those theories, based upon experience and research, colored the choices I made. Readers should know the perspective that is offered here: The organizational traits of schools as independent units and as members of a larger system, the traditional nature of schooling as a compulsory process, the nature of classroom instruction, including teacher characteristics largely explain, I feel, the curricular change and stability that have marked schools over the last century. This multifaceted interpretation, of course, will be explained further as the analysis unfolds.

DETERMINANTS OF CHANGE* IN CURRICULA

Broad Social, Economic and Political Movements

Over the last century, the nation has experienced a number of events and movements that have altered the fabric of our culture. Because schools are culturally-bound in our society, logic dictates that schools were affected by these forces. More than logic, however, is needed; evidence helps. I've selected just a few of the movements that have had profound impact upon the nation to illustrate their influence upon curriculum.

Corporate Industrialism

A number of writers have documented the impact of post-Civil War industrialization, especially the growth of the corporate organizational model, upon schooling in the late 19th and early 20th centuries.[14] While these writers disagree over why schools were so easily influenced, effects were, nonetheless, observable.

What about influence upon various levels of curriculum? The image of the factory and the related values of efficiency, order,

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*By change, I paraphrase the degrees of change sketched out by Berman, et. al. Initiative to make a change is one level; implementation of that change is another level and finally the degree the change is incorporated into subject matter and instruction. If a change occurs at any one of these levels, it is included here.[13]

worker obedience, standardization ofa finished product often surfaced in curriculum.

School administrators, for example, spent much time preparing uniform guides for teachers. After working an entire year, Superintendent Luther Short proposed the first graded course of study for the Franklin County (Indiana) schools in 1883. This 231 page volume detailed what each teacher and class were to do each fifteen minutes between 9:00 a.m. and 4:00 p.m.[15]

Illustrative of the concern for uniformity and efficiency, school administrators lustily embraced the then magic words of "scientific management". Callahan has richly documented turn-of-the century educators with stop watches determining which amount of time for spelling achieves more. Superintendents were telling school boards that the "increase of 1.7 recitations per week per teacher reduced the annual cost per pupil by $3.10". The savings were enough to "pay for nearly 13,000 pupil-recitations in expensive Greek". Professors taught that breaking down curriculum into its tiniest parts would establish standards for improved instruction. Or in John Franklin Bobbitt's words, "the ability to add at a speed of 65 combinations per minute, with an accuracy of 94 percent is as definite a specification as can be set up for any aspect of the work of the steel plant". Bobbitt's most influential book, How to Make a Curriculum, said the initial job of curriculum development is laying out in detail numerous, specific and "particularized" objectives which a subsequent generation of curriculum workers diligently did. The knowledge and technology gained from industrial efficiency experts were grafted on to schools willy-nilly in the early decades of the 20th century.[16]

In various cities, when business men felt strongly that the existing curriculum was too academic, they would endow special schools, as J. P. Morgan did in the New York Trades School with a $500,000 gift. Businessmen would also pressure school boards, as in Baltimore, to open a public manual-training school. By the early 20th century, many of these private schools were incorporated into public school systems and their vocational-technical curricula retained. That many of labor unions initially distrusted industrial education and manual training as "breeding schools for scabs" while the National Association of Manufacturers approved a resolution supporting such efforts only underscores the impact of emergent industrialism upon curriculum. By 1910, the differences between labor and corporate management had been patched over into a consensus upon the merits of vocational technical education. A survey completed in that year showed that twenty-nine states (of forty-six) had mandated some form of industrial education. Even more revealing is that in one decade twenty-five of those states had enacted their laws. "No other educational movement calling for large expenditures and involving sweeping changes in curriculum and method," the survey concluded," has received such prompt legislative recognition."[17]

Progressivism

Here also an extensive literature on political and social reforms between 1890-1920 impacting schools is available. The cold water dousing of America by the consequences of immigration, unrestrained industrialism and urban growth awakened lay and professional reformers to slums, poverty and ignorance. They needed tools to attack problems. City, state and federal governments offered some levers for change. So did schools.

They were accessible. They influenced the next generation. Cadres of reformers imbued with a religious faith in science, knowledge and civic morality saw the school as a splendid tool of reform.[18]

The expansion of the school's role beyond the academic and moral into an all-embracing concern for the entire child's welfare has already been described. The consequences of that inflation of role have ballooned the curriculum into unanticipated areas and firmly imprinted ideals of child-centered instruction that teachers have strived for ever since.

The cutting edge of change were various, overlapping groups of professionals and practitioners who, for lack of a better word, could be labeled Progressives. Tyack identified two groups of professors, superintendents and other educators as "educational scientists and administrative progressives" who exerted great influence upon what school systems adopted in curriculum through school surveys. By 1927 over 181 surveys had been done. In one study of fifty cities almost fifty percent of the school systems reported that revision of curriculum occurred as a direct result of these surveys.[19]

These educational progressives were enamoured with many of the values of industrialism, in particular the virtues of efficient corporate management. The notion that schools can be more socially efficient, that is, better prepare children who leave school was held in high regard by Elwood Cubberley, Paul Hanus, David Snedden and other major figures among school progressives.[20] The idea of differentiated curricula for young people who leave school to become workers, mothers, professionals, businessmen, etc., was an outgrowth of "social efficiency". Of 15 school systems studied by George Counts in the 1920s, thirteen had numerous, labeled

curricula. Newton, Massachusetts, for example, had, among other curricula, Classical, Scientific, Business, Household Arts, Agriculture, Printing, Automobile, Clerical, etc.[21]

Another group called "pedagogical Progressives" affected instruction and curriculum, Frances W. Parker, John Dewey, William Wirt, and others developed in public and private schools different conceptions of teacher, child and curriculum. While writers differ about the results of these reformers' efforts, that they recast traditional teacher roles and captured the imagination of succeeding generations of educators is well documented. Their thrust was to move the child to the center of the learning process. To make children active participants and to develop learning communities of children and teachers where continuity between home and school existed was their direction. To link up various portions of the curriculum that had, for years, been taught separately without much effort to make such connections, was a way of realizing this thrust. These views required much of the teacher.

"Progressivism cast the teacher in an almost impossible role," Cremin sums up the impact of these reformers, "he was to be an artist of consummate skill, properly knowledgeable in his field, meticulously trained in the science of pedagogy and thoroughly enbued with a burning zeal for social improvement."[22]

Whether these progressives influenced the daily classroom routine in most public schools is uncertain. Their efforts seemed to have had more currency in classrooms of suburban and private schools. What these reformers did, however, was influence what people said and talked about; curriculum, theory, the language of practitioners and professors, and curriculum guides shifted to a more child-centered and experience-linked

vocabulary. To that degree they influenced curriculum.

Beyond theory and syllabi, various groups of progressives could point to the heritage of an expanded, utilitarian, child-centered notion of curriculum that developed in the early 20th century leaving its historical residue in such current offerings as driver training, sex education, jewelry-making, leather crafts, and drug education.

Cold War and National Defense

The most recent surge of curriculum reform spanning the decade between the mid-50s and mid 60-s has been amply documented.[23] Origins of the privately and federally-funded efforts to toughen up what was taught in public schools were traced to the defensive, hostile and insecure military position of the United States vis-a-vis Russia in the early 1950s. Russia's production of atomic and hydrogen bombs was not simply viewed as one wag quipped--"their German scientists had gotten ahead of our German scientists". The security gap was linked to deficiencies in technical and scientific schooling youth received.[24] That this linkage coincided with attacks by public figures and academicians upon the alleged softness and intellectual decay in schools made possible a vocal and prestigious coalition of critics.

In the early and mid-1950s, the National Science Foundation and private groups underwrote several curriculum development projects headed by well-known academics as Jerrold Zacharias and James Killens. These professors were pursuaded that the science taught in schools was anemic and outdated. Sputnick triggered further critical outbursts at schools and mobilized far more intensely these forces already at work. The passage of the National Defense Education Act marked the capstone of a

movement to inject new scientific content and academic vigor into the classroom.[25]

By the mid-60s, private and public funding of new biology, chemistry and physics courses based upon notions of the structure of a discipline and inquiry methods of teaching had been developed by scholars and, in a few instances, teachers. In a survey completed in 1964-65, twenty percent of the students taking introductory physics were using new curriculum materials; among those ablest college-bound teenagers, the percentage reached forty for physics, twenty-five for biology and twenty for chemistry.[26]

While disappointing to many of its advocates, the figures demonstrate a filter-down effect into classrooms. By the end of the decade over $200 million in federal funds had been invested in curriculum. Publishers were bidding on curriculum packages emerging from projects. The new physics, for example, was released to D. C. Heath who, by 1967, sold over a quarter-million copies. Under federal grants, teachers attended summer and year long sessions on university campuses taking notes from scholars about what to teach when they returned to their classrooms. School systems began adopting the new curricula and texts. Teachers, unevenly and slowly, began using the materials in classes.[27]

While only a few social movements have been briefly cited, it is easy to document their impact upon schools and curriculum; it is, however, far more difficult to prove that a movement led directly to consequences observed in schools. In short, the old saw: correlation is not causation. The difficulty rests in the lack of studies directly focusing upon the relationship. And for good reason, since it is almost impos-

sible to separate the various strands that tie schools to other institutions of the social fabric. Lacking such studies, what's left is the potent folklore that believes in external forces causing school change and observations by experienced participants (of which I include myself) and sharp-eyed non-participants.

Based upon such a frail foundation and recognizing that whatever is written here, will be tainted by the possibility that only a correlation exists, it does seem reasonable to say in view of that folklore, observations and available evidence that these movements helped determine curricular change.

Political-Legal Decisions

Another force for change that helps determine curriculum are state and federal laws and court decisions. Tyll van Geel's paper on "The New Law of the School Curriculum" describes in rich detail the penetration into curriculum by Congress, state and federal courts. Rather than cover the same ground, I will focus upon evidence that does not appear in his analysis but does coincide with many of his conclusions.

State and Federal Laws

Whether the result of lobbying by special interest, enacting consensus values or sweeping social changes that produced potent political coalitions both state and federal laws have either mandated specific courses for students or produced changes in what content was taught. Consider just a few examples:

1. A 1966 survey revealed that a majority of states require courses in the dangers of alcohol and narcotics; half of the states mandate U.S. History and physical education. More recent entries into the curriculum such as driver education, vocational-technical training,

etc. have often been lobbied into state mandates to local districts. While strong-willed districts can get around weak enforcement machinery such laws have the effect of introducing courses where none or few existed.[28]

2. Federal laws impacting directly upon curriculum have a long history. Vocational legislation dates back to the Smith-Hughes Act (1917) with subsequent revisions over the next half-century. In 1972 almost one billion dollars was authorized for buildings, teacher-training, and support of industrial subjects, home economics, trades and technical occupations and a host of related areas. The National Defense Education Act (1958) supported science, math and foreign languages; in 1964 the law was extended to English, reading, history and geography. The Economic Opportunity Act (1964) influenced pre-school curricula with its Head Start programs; The Elementary and Secondary Education Act (1965) targeted upon the disadvantaged, touched over 90 percent of the nation's school's districts with classes for talented and underachieving youth, enrichment programs, new instructional materials, on-the-job training for high school students and scores of other activities; The Juvenile Delinquency and Youth Offenses Act (1961), Civil Rights Act (1964), International Education Act (1966) and Ethnic Heritage Act (1972), all contained provisions that touched existing courses of study or stimulated curriculum development.[29]

These laws authorized grants. Agency regulations attached conditions to the grants. Money flowed into schools. In a major study of eighteen states with almost 300 projects funded under ESEA, vocational education and Right to Read, the RAND corporation found that "federal policies had the greatest effect at the initiation stage, mostly by

providing funds and encouragement" to school districts. They found less direct impact of these federal dollars when school districts began implementing the projects by the terms of the grants.[30]

3. In addition to these laws, federal agencies have spent funds to improve curriculum, particularly the National Science Foundation and Office of Education. Over $250 million has been spent by these agencies to develop new biology, new math, new physics, new social studies and new English. Impact of such massive funding ventures has been cited before in course adoption and new textbook content.[31]*

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*To add some further detail to how state and federal legislation spur curricular change, I was a master teacher in, and later director of, a federally-funded program aimed at training returned Peace Corps volunteers to teach and develop curriculum materials in three inner-city schools in Washington D. C. between 1963-1967. In those four years our funding came from the Juvenile Delinquency Youth Offenses Control Act and the Economic Opportunity Act, neither of which deal explicitly with reforming local school curricula, yet the project did have a modest impact upon what individual teachers chose to teach and how they taught. As a superintendent since 1974 in Arlington, Virginia, I have seen other instances of state and federal influence upon curriculum. A recent state law holding school districts responsible for educating all handicapped children between the ages of 2-21 has affected how schools are organized, what is taught and how instruction takes place, especially, in elementary classrooms.

In the last two years we have sought out a number of federal grants in order to deal with specific problems that seemed to be beyond available

Court Decisions

While there have been a number of court decisions involving teacher rights, student rights, religious instruction, and other related issues, the instances of judicial intervention into the school curriculum, as defined here, remains modest but is, nonetheless, growing. Again Tyll van Geel's analysis of both state and federal court decisions reveal the growing magnitude of the penetration. To avoid duplication, I will cite only one instance where a judicial decision has had much impact upon curriculum.

In the decade following the Brown decision, many desegregated school districts changed ability groups, teacher practices, texts and integrated the curriculum. A number of studies document the ripple of changes that ebbed and flowed through schools undergoing desegregation.[32]

In Hobson v. Hansen (1967), federal Judge Skelly Wright ruled that the four-track system designed by Superintendent Carl Hansen in

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local resources, specifically, development of multiethnic materials, and bilingual instruction. These federal funds crystalized our impulses into concrete programs. Coincidentally, shortly after we had begun our search for bilingual funds the Office of Civil Rights in the Department of Health, Education and Welfare threatened withdrawal of other federal funds in we did not initiate certain kinds of bilingual programs acceptable to the federal agency as they interpreted the Lau v. Nichols decision. The threats, in my judgment, were of marginal influence compared to the incentives of federal funds. Finally, Title IX guidelines on sex discrimination led our school board to set as policy, a series of directives to the professional staff on what is appropriate content for instructional materials, texts and other sources.

Washington, D. C. had been a conscious effort to segregate white from black students and must therefore be dismantled. In Washington and those other school districts that were either ordered to or chose to end tracking, the impact upon teachers was felt in subsequent years. "College-bound", "general", "business" and "basic" courses of study gave way to classes where "ability", as one teacher put it, "is too widespread". Or as another said, "it takes about three times as much time to cover materials". According to partisans of tracking, standards, grades, and what was covered in class, deteriorated. As a result of these changes, more stress was placed upon a new list of educational buzz words: flexible grouping, individualized instruction, diagnostic and prescriptive teaching. Most of these translated unevenly into classroom practice.[33]

Another area where Brown-affected curriculum was in course guides and texts. Not of itself, of course, but the court decision insofar as it triggered the civil rights movement and as that movement launched a rebirth of ethnic pride among blacks can the integration of content be linked directly to Brown. With desegregation, revised curriculum guides soon emerged from school districts that altered their lily-white history, English and other content areas. By the 1970s, textbook publishers had cranked out school books and pamphlets that one critic of history texts felt moved to "praise what the American-history textbooks have...achieved in their treatment of black Americans".[34]

New courses especially, in the high schools, were introduced that dealt separately with blacks, Hispanic-Americans, human relations and other combinations. Whether or not separate courses is the most appropriate response is another question; that courses were created can be

traced back to the ferment arising from Brown and its judicial progeny.

Influential Groups

If one were to map out who influences curriculum at various levels, the dispersal of the decision making process would probably surprise readers. External groups such as publishers, foundations, professors and researchers, professional associations and internal groups to the school community such as students, teachers, curriculum workers, superintendent, school board and citizens are many, but not all, of the participants in this decision-making process. The splintering of control over curriculum undercuts the notion that school boards and superintendents make curricular decisions. Another obvious fact what would jump out at the reader of that map would be the incredible complexity of interrelationships. It is a messy map. Yet messy as it would appear, some of these groups act as top sergeants of social change in schools.

Many of these groups mediate between the sharp probes of social change into schools, softening jagged points, smoothing rough edges and selecting what is important that needs doing. Many of these groups lobby social impulses into legislation. Many of these groups translate national hopes into local practice. Many of these groups sell change.

A number of writers have tried their hand at making conceptual maps. By asking the question: who influences curriculum decision-making? analysts have detailed the numerous actors exerting varying degrees of influence. In this portion of the paper, I will deal with those groups that help determine curriculum change.[35]

Publishers determine curriculum. The time that is spent by students reading and memorizing texts remains large. Each child, accord-

ing to Hillel Black, reads at least 32,000 textbook pages in his or her twelve years of public schooling. The Texas Governor's Commission on Public Education estimated in 1969 that 75 percent of a child's classroom and 90 percent of his or her homework time was spent in using schoolbooks. Observer after observer has reported teacher reliance upon textbooks at both elementary and secondary levels. What gets into books, then, has a captive audience. Yet most publishers, especially the larger, corporately owned ones, seldom initiate, seldom take many risks in charting new directions in content. As one major publishing editor-in-chief put it: "In our business, the customer chooses."[36]

As uninnovative as that remark sounds, publishers responding to the marketplace do, indeed, change what students read, memorize and forget. Already referred to have been the new science and math texts that have replaced older, out-dated ones. New inquiry approaches, soft-bound books, cassettes, and a basketful of new instructional materials and devices have infiltrated and spread through the nation's classrooms. Publishers are responsible for translating many of the national curriculum efforts into marketable products that textbook salesmen (the real footsoldiers of change) inform teachers of.

Another external group that has affected curriculum are foundations. The Ford, Rockefeller, Carnegie and Kettering foundations over the last two decades have filled gaps left from federal support of curriculum development in such areas as the arts and social sciences. Ford's well-known Fund for the Advancement of Education spent $50 million, for example, over a fifteen year period in team teaching, Masters of Arts teaching programs, teacher use of instructional technology and other innovations. It was followed by a $30 million, decade-long, Comprehen-

sive School Improvement Program that focused upon new staffing patterns, new curriculum materials and technology. Here, too, impact, according to the foundation's report, was most uneven and temporary.[37]

Money from external groups is not the only prod for change. Professors in liberal arts and in schools of education, through their writings, research and students have had impact upon school curriculum. Already mentioned was the academic assault of the early 1950s led by Arthur Bestor, et. al. upon the anti-intellectual Progressivism they saw rampant in public schools; or other academics such as Jerrold Zachiarias, worked on revisions of science materials; also that cadre of professors, superintendents and lay reformers in the decades on either side of World War I, enamoured with scientific management, whose advice and designs for social efficiency were rapidly embraced by eager school practitioners.

Professional associations, as well, helped change curriculum. During the surge of curriculum change in the 1950s and 1960s, the American Association for Advancement of Science and the American Institute for Biological Sciences helped fight for the concept of evolution in biology books. The American Mathematical Society sponsored the new math effort until federal funds picked up the tab. Similarly, the Americal Council of Learned Societies helped revise social studies.[38]

Because local school boards lack money to mount major curriculum revision, develop sophisticated instructional materials or carry on even modest research, these external groups play an important role in generating curricular choices from which schools can choose in spreading new content to staff and in helping prepare teachers for change.

Internal groups such as students, teachers, specialists, superintendents and principals carry potent vetoes over change and do initiate curricular change by choosing among the alternatives. One group, however, that can determine curricular change by itself is aroused, angry parents. No superintendent or school board can safely ignore the sporadic flashflood of hot anger that sweeps over a school system when particular community values are stung to their core. The recent textbook furor in West Virginia's Kanawha County is only one instance. Many school systems have had their Kanawhas over sex education, obscene library books, subversive content, etc. While these are examples of negative (yet quite potent) change, for the most part, parents view curriculum as technical matters best left to professionals, save for those instances where basic values are ruffled. There have been other cases, of course, when PTA's and lay groups have campaigned quietly but persistently for curricular changes and gotten them--over time. The Progressive Education Association's Commission on the Relation of School and College, for example, helped get the remarkable Eight Year Study underway in 1933.[39]

These influential groups, then, are some of the top sergeants of curriculum change who mediate between national social movements and local school systems by selecting, promoting and installing those changes parents and teachers feel can be accepted. These groups in various ever-changing, shifting coalitions help determine curriculum change.

Influential Individuals

Ask ten historians of education which five persons have determined curricular change in the last century and my guess is that only

a few names would turn up on all ten lists. The reason would be found as much in the question as it would be with the ten historians.

Half the problem is getting any group of historians to agree upon what curriculum means and what would constitute change. The other half of the problem comes from the issue of the individual's impact upon events as implied in the question. With the current popularity among social scientists of organizational, political, bureaucratic and demographic models, to suggest that change might be partially explained by the impact of individuals seems, at best, quaint. Moreover, unresolved doubts remain in the historians' minds who even accept the possibility of individual impact upon events. Was the change the direct result of a person's effort or did the individual happen to be at the right place at the choice moment and thereby influence the course of the change or was the individual tossed upon the stage by powerful forces coincidentally as the change occurred and simply flowed with events that he or she could as much control as the driver of a skidding automobile?

I propose no resolution of these doubts since I have my share. But I do suggest that some individuals who wrote, spoke, taught and worked in schools changed curriculum. Perhaps, the impact was modest, even slight, yet our lack of analytical skills and knowledge about individual effect should not dismiss the forcefulness of particular individuals in effecting curricular change at its various levels.

Consider five people who might or might not appear upon historians' lists: teacher and philosopher John Dewey, superintendent and philosopher William T. Harris, Professor Edward Thorndike, Professor John Franklin Bobbitt and Professor and writer Ralph Tyler. These

five men--and there could just as well be another five names--affected theory, content, materials and instruction through their writings and teaching. Most were professors and thereby exerted much influence upon students--many of whom subsequently became professors. Most were prolific writers, producing articles, textbooks and essays. They were translators of social change; they mediated between movements and school practice. Here, again, were valuable top sergeants of social change. Because they wrote and taught, however, their direct effect upon each level of curriculum is most difficult to sort out.

Lawrence Cremin, for instance, wrestled with assessing John Dewey's impact upon schooling. Dewey's disciples went their different pedagogical ways. As heirs to Dewey, they added, deleted and shifted their own freight to their mentor's baggage. Every thinker must suffer ardent disciples and Dewey, Cremin reminds us, was no exception. Is the mentor accountable for the distortions made by not one but by hundreds of students? Cremin concluded that until further studies are done of Dewey's work that recognize the changing context in which he operated and sort out the changes he helped birth from those he explained and criticized, his influence and impact will evade historians.[40]

Evidence suggests that these five persons had much more impact upon theory and development than at other levels of curriculum. They affected ideas. Intellectual histories are made of such stuff. It was Dewey who captured the imagination of a generation of teachers, administrators and reformers with the possibilities of a new teaching role. What remains to be mapped out are the intellectual threads that can be traced into content, materials and classroom instruction. An avid fisherman who lacks rod, tackle and bait on the bank of a stream

abundant with trout, doesn't say fishing is unimportant. He seeks different ways to fish. So, too, should historians and social scientists search for diverse ways of assessing individuals' impact upon curriculum.[41]

These, then, are the primary forces that, in my judgment, determined change in curriculum over the last century. Social, political and economic changes exerted the most impact while the rest of the determinants acted as second and third level mediators softening, selecting, modifying and promoting different, less potent versions of movements jolting the culture.

Vulnerable to each wave of social change, laws and court decisions, political lobbies, publishers and a host of other groups, the schools were as easily penetrated as a sieve.

Schools lack control over external changes and can only marginally influence each wave's consequences. Schools react, sometimes respond, but, as I feel the evidence demonstrates, are incapable of turning aside such potent movements. Because of this, as the waves of social change sweep across schools, each wave leaves a curricular residue. Much as archaeologists excavate a dig to uncover the layers of ruins in order to discover what life was like at each stratum, an archaeologist, given the opportunity to view a cutaway of school curriculum over the last century would discover the course and text residue from corporate industrialism, Progressivism, World War I, etc. There is far more than a chuckle in Cremin's observation that "in other countries, where there is a profound social problem there is an uprising; in the United States, we organize a course!"[42]

What seems to be missing from this description of the school's historic vulnerability to social change is the simple question: why? Answers to such a question are important since explanations for this vulnerability may suggest what directions to pursue were policymakers interested in trying to increase or decrease the penetrability of schools or, at the very least, understand the change process.

Some researchers have found an answer in superintendents and school boards capitulating to these forces when they could have resisted.[43]

Other researchers found an answer in the role that schools play in reproducing the larger society. Schools change, they have argued, only in order to better serve corporate and industrial interests for whom schools produce workers, managers and consumers.[44]

And other researchers stress as their answer the political nature of schools. With so many participants, each possessing varying degrees of influence, coalitions form, split, reassemble and disappear in an effort to maintain an internal balance while interacting constantly with an unpredictable, powerful external environment. To be vulnerable, these researchers say, is to survive.[45]

These explanations are plausible. Each one suggests a different perspective that reveals certain snapshots quite unlike offered by other explanations. That is valuable, I would like to suggest, however, another perspective. Not because I feel it is the "right" one--for I don't; not because I have structured this analysis to lead inescapably to the only answer--for I haven't. I offer this perspective because it is, simply, another snapshot.

We know so much about how to put a school and school system together, but we understand so little about what happens in both once

they are together. We need as many perspectives, anchored in data, that we can develop. For the truth of curricular and school change is far more complex than existing perspectives have captured. The shards of truth encased in different viewpoints do not add up yet to a whole. We need many more shards before other writers can reassemble them into a meaningful whole.

The perspective on the vulnerability of schools to social change that I offer has been suggested by others. It is found in the organizational traits of schools and school systems. It may help to explain in a slightly different way why social forces, groups and individuals penetrate schools so easily. I see four organizational characteristics that may explain this vulnerability: blurred goals, unclear technology; uncertain outcomes; and fluid participation.[46]

Public schools have blurred goals. Periodically, over the last century, formal listings of goals rumbled forth from the National Education Association, White House Conferences, blue-ribbon commissions and, closer to home, Parent Teacher Association committees of the neighborhood elementary school. In 1874, a group of college presidents and school superintendents agreed that the school is "obliged to train the pupils into habits of prompt obedience to teachers and the practices of self-control in its various forms."[47]

In 1918, the National Education Association's Commission on Secondary Education produced seven "main objectives" for schooling. Among them were health, "worthy home membership," vocation, citizenship, "worthy use of leisure," and ethical character. Moreover, each child should develop "his personality primarily through the activities designed for the well-being of his fellow members and of society as a whole."

Across the country, school systems rapidly adopted these goals.[48]

Successive redefinition of what the goals should be occurred in each subsequent decade. By 1956, the White House Conference on Education looked back and concluded:

> The basic responsibility of the schools is the development of the skills of the mind, but the over-all mission has been enlarged. Schools are now asked to help each child become as good and as capable in every way as native endowment permits. The schools are asked to help children to acquire any skill or characteristic which a majority of the community deems worthwhile. The order given by the American people to the schools is grand in its simplicity; in addition to intellectual achievement, foster morality, happiness, any useful ability...[49]

Not only do goals shift and change over time but few formal goal statements contain sufficient clarity to guide public school administrators or board members to make policy and evaluate outcomes.

Unfocused goals mirror, in part, a lack of consensus among participants over what schools are for. Because of erratic and inconsistent entry, flow and exit of participants in making school decisions, it is most difficult to gain a broad, stable agreement upon what schools should do.

Public schools have an uncertain technology. Teacher, books, and a chalkboard sum up the basic technology used with children in virtually all public school classrooms. Add an overhead projector, a record player, tape recorder and TV console in the corner and the technological advances of the past century that have entered classrooms have been almost exhausted. But technology is more than hardware. It is educational engineering through systematic analysis to help teachers and administrators go where they wish and get there successfully.

Yet, after two decades of claims for programmed instruction, closed circuit television, computer-assisted instruction and behavioral objectives, changes have been meager.

For the fifty million pupils who attend class in elementary and secondary schools five hours every day, the Commission on Instructional Technology concluded that not more than five (but probably closer to one) percent of the time "involves media of instruction other than the teacher, the book, the blackboard, and pictures, charts and maps hung on the wall." After two decades of the claims for the advantages of instructional TV, less than three percent of total classroom hours in the sixteen largest school systems comes from television.[50]

Advanced school technology, be it hardware, software or system analysis, remains unimplemented for a number of reasons that will be gone into later but one obvious reason is that basic questions about learning and teaching still remain unanswered. How does a child learn? What makes an effective teacher? Can a school shape values? Without reliable answers to these and other fundamental questions, the level of technology will remain where it currently is.

Endemic uncertainties about outcomes. Most school goals are intangible. So are results of schooling. If schools were in the business of buildign bridges, landing airplanes, producing winning football teams, goal schievement would be concrete. After all, bridges stand or fall; planes land safely or not; teams win, tie or lose. Moreover, there are blueprints, flight plans, and game plans plugged into well-known traditional and developed technologies. Some cause-effect relationship exists between a craft and a product. Not so for schooling.

Schools are expected, for example to produce youth who are "worthy" citizens. There is simply no way of clearly determining whether or not a school has achieved its goal when a student graduates high school. Even if "worthy" citizenship could be reduced to a set of behavioral objectives--and when they are how trivial they appear—the achievement of those specific targets would seldom convince a reasonable person that individual youths in a graduating class were good citizens. For the most part, this commonly-expressed goal has not been reduced to specific, measurable terms but has remained at the general level where the phrase means different things to parents, taxpayers, teachers and students.

What compounds the inherent ambiguities of school goals is the uncertainty of existing teacher technology. We know very little about exactly how a teacher's verbal and decision-making skills, personality, text and other tools impact upon either groups of children or individuals over the course of a half-hour, a day or a year. The mysterious interplay between teacher, skills, tools, children and time continues to elude researchers. Without much basic understanding of the technology of teaching, no solid linkage can be made between what is done and what happens. Cause and effect continue to play hide and seek with one another. And without that linkage, uncertain outcomes will often frustrate observers and practitioners.

This uncertainty over outcomes in citizenship, ethical values, self-awareness, human relations and a dozen other commonly-stated school goals is no news to teachers. In a major study of teachers, Dan Lortie found over one half of 6000 teachers who were studied said they had some difficulty in knowing how well their work was going. "I do wonder, at

the end of every single year," a teacher remarked, "how much good have I done." He works on his car as a hobby. "That brings pleasure to me and I just wish I could see more of it in my teaching."[51]

Public schools have fluid participation. Participation is used here to mean who gets involved in making decisions and the amount of attention given to problems as they arise and disappear. Public schools are under lay control. That basic fact explains to a great degree why and there is much traffic in and out of school systems. Contrary to popular belief that the Board of Education makes policy and the superintendent implements it, there are few clean lines of separation of authority or amount of time spent by each on making decisions. While at no point is the Board and superintendent far from the process, they do not totally dominate it. The gross number of part-time participants in school system decision-making stretches longer than a weekly shopping list. Beyond Board members, superintendent and central administration, there are principal, teacher and student organizations, municipal officials, parental and civic groups as well as cranky and fired-up individuals. Many of these participants enter, make noise, and exit at different points in time with varying volume and amount of time spent, again depending upon the issue and the school district. Because there are thousands of school districts varying in size and governance, observers often need a scorecard to figure out who is where, doing what, and for how long.[52]

Some examples might help illustrate the fluidity of participation. Robert Dahl analyzed over a half-decade eight major decisions taken in the New Haven school system. He found that most policy decisions

could be attributed to eight individuals, a group of three Board of Education members, three public agencies and the local teachers' association. Neal Gross studied in depth Massachusetts superintendents and school boards during the early 1950s. Superintendents and school boards perceived participation as pressure; they had no difficulty in cataloging nineteen groups who got involved.[53] Any number of studies on school systems during a crisis underscore the broad spectrum of entry-noise-exit participation as well as the part-time attention paid to particular problems. Apart from crisis situations, board and superintendent remain central, but depending on issue and district, participation remains fluid. Such participation accounts, in part, for blurred goals. Varied coalitions of participants form; bargaining between coalitions produces both multiple and compromise goals; coalitions splinter, disappear, reappear and reshape previous goals adding new ones--some of which clash with others producing a slightly different but undeniably long laundry list of unclear goals. Loose, shifting, part-time participation also reveals the vulnerability of school systems to either gales of criticism or gusts of pressure. Kanawha is practitioners' shorthand for curriculum vulnerability. Boundaries of public school systems are soft, easily penetrated by both individuals and groups determined to participate in decision-making.

Organizational Traits

How might these organizational characteristics explain change in curriculum? Consider how volatile participation brings into schools and administrative offices a steady traffic in and out of individuals and groups with different concerns and values. As carriers of concerns

and values, participants often make demands upon the school's and system's decision-makers for particular changes. Yet, for those making demands, networks of access routes (citizen committees, school board elections, textbooks selection, tax referenda, PTA's, superintendent firings, etc.) function as an early warning device to schools signaling that turbulent social change must be reckoned with. Because schools operate within unpredictable environments these access routes offer opportunities for school decision-makers, if they desire, to convert concerns and problems into acceptable innovations.

When blurred goals and loose causal linkages exist between technology and outcomes, organizational learning is often imitative, even superstitious. Practitioners just don't know for sure why some methods may work, e.g. phonics, and others may not, e.g. ITA alphabet. Lack of reliable knowledge about basic operations creates acute insecurity, especially in people who earnestly identify themselves as professionals. What often happens in such settings is a constant search for a better answer, an easy solution to entangled problems.

If this restless search derives from the organizational traits of ambiguous goals and unclear technology then it may explain why schools have been historically susceptible to fads and imperfect panaceas.

The educational past is littered with the debris and wreckage of innumerable curricular changes that were lustily embraced for short periods of time by school practitioners only to either disappear or leave a slight residue: scientific management, platoon schools, Dalton Plan, Winnetka Plan, Eight Year Study, tracking, I.Q. tests, inquiry teaching, non-graded classes, modular scheduling, open classrooms, alternative schools and innumerable other bright ideas.

Many observers have noticed how some content changes, (e.g. new math), instructional practices (e.g. inquiry teaching), or organizational innovations that touch curriculum (e.g. team teaching) spread rapidly within particular networks, such as wealthy, suburban schools, urban superintendents of large school districts, curriculum supervisors, etc.[54] Rapid diffusion, sometimes known as an educational stampede, may be related to those periodic frenzies of organizational search for quick answers. Insecurity over intangible outcomes may drive practitioners to embrace innovations to forestall public criticism or demonstrate how up-to-date the schools are after public attacks have already been launched.

Clearly, these statements are speculative and require testing. They suggest, however, how some organizational traits may explain change in curriculum over the last century. The forces that have helped determine curriculum change have been outlined. Examples were given. A number of perspectives were mentioned that suggested explanations for why schools have been historically vulnerable. Another perspective, dealing with organizational characteristics, was sketched briefly not to compete with other perspectives, but to supplement them. Particular organizational traits may explain school's vulnerability to social change and why curriculum varied over the decades.

Many of changes described impacted most upon how professionals thought and wrote about curriculum. Some changes revised content; others affected the materials that were used by both teachers and students and some touched classroom instruction. The next section examines the impact of a century of enormous curriculum change upon what happened in classrooms.

CURRICULUM CHANGE IN CLASSROOMS

By change, I refer to three levels. When an idea, a practice, or a program, is begun, that is one level of change. If what is initiated is then implemented, that is, not only undertaken but what was expected to be done was, indeed, done then this is a second level of change. A third level is when the idea, or practice or program is incorporated into existing subject matter and instruction. A number of instances already cited demonstrate that curriculum change occurred at the first two levels. In a few cases, there were third level changes.[55] It is the latter level of change that can be the most enduring, and have the most impact upon children.

Earlier in this analysis, I used the metaphor of a hurricane to describe levels of impact upon curriculum. The surface turmoil stirred by 100 mile winds could be analogous to the controversy over different curriculum ideas. It is the controversy over ideas that has filled book shelves with intellectual histories. Beneath the high waves, if we dip in our imaginary bathysphere, there might be agitated motion but not of the magnitude occurring upon the surface. Here the analogous feature of curriculum change might be revised courses of studies, new courses, and modified textbook content.

Were our bathysphere to plumb deeper, ripples, occasional disturbances in regular current, and fish nervously scuttling about might be seen. Here we would look for impact of changes upon how teachers

taught, materials and methods they used. Finally, if we touched bottom, the hurricane on the surface may not have affected fish, plants, current or disturbed anything out of its natural order. Carrying out our analogy, this level would be the results of curriculum change insofar as what students experienced and learned in the classroom.

As with most metaphors, comparisons are imperfect. The hurricane metaphor probably telegraphs too rigid an interpretation, that is, curriculum changes over the century had the most impact upon theory, next upon formal courses and knowledge, less on how teachers taught and very little upon what children experienced in classrooms and learned.

Evidence already drawn from the last century supports the point that curriculum change has had much impact upon ideas, courses and content. No evidence presented so far shows the degree of impact upon teachers and classrooms. And that third level of change is the subject of this section.

There is a problem, however. How do you find out whether the abundant and diverse wealth of curriculum changes penetrated classrooms over the last century? One way of getting at that is to find out what was going on in classrooms before and after these changes. But how? What sources of historical data exist on classrooms?

We have photographs of children in class, their teachers, activities and the physical layout of schools. We have books teachers taught from. We have students' work and later recollections of their experiences as students, although these sources along with those drawn from parents remain largely untapped. We also have, of course, the reports of teachers. Next, we have the largest source of data--although, here again, much mining has to be done--drawn from people who visited classrooms, i.e.

reporters, parents, social scientists, administrators and professors.

Sadly, few historians have looked carefully at life in classrooms. Barbara Finkelstein, in her unpublished dissertation, and a number of recent articles, is one of the few historians who have sifted and analyzed sources before 1900.[56] There is a current generation of social scientists who have looked at certain narrow pieces of classroom behavior since the 1950s using techniques drawn from sociology, anthropology and political science. Yet, between 1900 and 1950, the data is scattered and remains largely uncollected. We know little of what happened between teacher and child in the classroom.[57]

The unevenness and, in certain periods, absence of studies, poses another problem: can firm conclusions be drawn? Probably not. All that can be done here is make some preliminary statements from what exists, knowing full well the dangers of selectivity, and draw a few tentative conclusions <u>if</u> — and the if is a major one--the studies show a persistence in findings, a stability in conclusions even when the data is drawn from schools that are rural and urban, small and large, poor and rich, white or black, and cover different time periods. The notion here is to use different kinds of data, drawn from different sources, in different time periods, and see if the findings about teacher behavior, classroom instruction and teacher-student interplay converge or diverge. Necessarily, with limited space I can only make tentative statements. Others will have to test these preliminary findings against further research.

I will examine briefly three different time periods: post-Civil War to about 1900, the two decades after the Progressive Movement and the years after Sputnik, 1960s-1970s. The purpose behind

examining the three periods is to look at classrooms before massive reform waves swept across the educational landscapes and then examine classrooms in two separate time periods after waves of curriculum change had occurred to see what had gotten by the classroom door.

1870s - 1900s

Schools in these decades were the result of an earlier generation of reformers who wished to spread the virtues of public schooling to all children. References have already been made to the consequences of corporate industrialism and the growth of the "one best system." What was going on in classrooms?

In looking at classroom photographs and the art of those years what strikes an observer immediately is class size, uniformity in student behavior, and the dominance of the teacher. Images of the military jump out at a viewer. Classes over 50 were common in these photos; children sitting in rows, hands clasped, or standing at attention show up repeatedly. Invariably, childrens' eyes are up on the teacher. Tight discipline, strict obedience and fear are inferences one can reasonably make about those classrooms. Photos probably showed the ideal superintendents, principals and teachers wished to capture. By turning to written accounts, we can see that the photos were more than suggestive.[58]

Barbara Finkelstein mined the writings of participants--teachers and students recalling their experiences—and observers—journalists and foreign travelers—to describe classrooms across the country in diverse settings from before the Civil War until 1890. "We find," she concluded, "that teachers assigned lessons, asked questions and

created standards of achievement designed to compel students to assimilate knowledge and practice skills in a particular fashion." In all accounts she examined, she found only three instances of teaching situations in which teachers "engaged students in discussions designed to elicit student ideas, ...and no descriptions of discussions which required students to interpret or criticize textbook material." The task of the teacher as one Oregonian recalled, was "keeping order and hearing recitation." Teachers had classes chant, repeat, and memorize text selections. Even some students "who never learned to read or write could", as one North Carolina teacher remarked, "spell by heart every word in Webster's Spelling Book."[59]

Drill masters, as Finkelstein calls them, teachers were also moral overseers. They demanded from students obedience, cleanliness, patriotism, diligence and respect. To drill and oversee morality, teachers were disciplinarians who used rod, cane, ruler, hand, ridicule, and other assorted tools in the Lord's work of teaching children to act right. In exercising these various roles, teachers often looked upon "academic failure as evidence of moral sloth."[60]

Repeatedly, observers and former students recall how textbooks were the sole sources of information. Ruth Elson's study of nineteenth century textbooks demonstrates the kinds of knowledge memorized while underscoring the moral content of these materials. That texts were sole sources should not surprise anyone since in the late nineteenth century, most teachers had little more than grammar school or perhaps high school training. They needed something to lean on.[61]

Moreover, superintendents, school boards, and teachers used text content as the basis of evaluating student performance. In Portland,

Oregon, under the close supervision of Superintendent Samuel King, teachers drilled students on the material covered on tests. With few exceptions, test questions required definitions, facts and recall of textbook explanations.[62]

When Joseph Rice toured 36 cities and observed twelve hundred classrooms in the early 1890s, he found pretty much what Finkelstein reported in earlier decades. While there was some diversity in practice—Rice noted, for example, certain exemplary schools—nonetheless, teachers dominated classrooms with rules, talk, texts and moral authority. Uniformity was the goal; obedience was the means and discipline was the tool. "Stand straight, don't bend the knees," a New York teacher barked at students in Rice's presence. "How can you learn anything," another yelled, "with your knees and toes out of order."[63]

The similarity in reports from observers and participants that Finkelstein drew from accounts of rural and urban, north, south and west, big and small schools is striking. Tyack's use of similar accounts and the limited inferences that can be made from photos and art intersect with Finkelstein's study to suggest the bare outlines of the dominant mode of classroom instruction in the last quarter of the nineteenth century.

1910s - 1930s

After its birth in the 1890s, the heyday of Progressivism blossomed in the initial decades of the twentieth century. Embracing the ideology, superintendents, principals, and professors, helped differentiate curriculum, spread the use of mental tests, stressed ability grouping, and helped focus upon the child's interests.

The curriculum expanded, specialists joined teachers in working with children. Play entered the primary classroom while laboratories and extracurricular activities became part of secondary schools. Teachers now were expected to do more than teach the 3Rs and oversee the moral development of their charges; they were to be warm, caring individuals seeking out childrens' interests and designing learning activities jointly with students. It was "an age of reform," Cremin concluded, "as thousands of local districts adopted one or another of the elements in the Progressive program."[64]

Evidence of impact upon classroom life, again drawn from observers and participants, is spotty. No comprehensive studies on these decades have been done that examine what teachers and children actually did in classrooms.

John Dewey visited public and private schools and in collaboration with his eldest daughter, Evelyn, wrote Schools for Tomorrow. They cited examples of curriculum tailored to children's interests. The photos they illustrated their book with were strikingly different from the traditional classroom photos of activities before 1900. Many pictures didn't even have a teacher in them--an unforgiveable omission two decades earlier. Photos often showed children doing things rather than sitting and listening. Most photos had children outside schools in playgrounds, gardens and meadows.

The programs and teachers the Deweys described had children and teachers working together on various activities. While they described, for the most part, private, university-linked and small public elementary schools, they did observe an all-black public school in Indianapolis and gave rave notices to Superintendent William Wirt's Gary school system.[65]

A few years later, however, a team of evaluators were invited to assess Gary's progressive school plan. In many ways, they concluded, the new school organization, and the way children conducted themselves were decided advances over previous schooling in Gary. But classroom instruction in history, math, language arts and geography were found to be still traditional and formal. Having a new philosophy is one thing; having the bulk of a teaching staff committed to that philosophy, they felt, is another.[66]

Were one to have moved to another Indiana city in the mid-twenties, as two sociologists did, when Progressivism had become the conventional wisdom of schoolkeepers another picture of classroom life would emerge. In Muncie, Indiana, as Cremin reminds us, schools may have been more typical of what happened in the country than the Winnetkas and Denvers, small private schools that Progressive promoters pointed to in their writings.

"The schools," the husband and wife team of sociologists concluded after living in Muncie for eighteen months, "like the factory, is a thoroughly regimented world." They compared the curriculum and activities of Muncie schools in 1890 and 1924. There were, in 1924, more courses. More practical, job-oriented activities, more emphasis in physical education, more electives, sports, clubs and dances now were a far more important segment of students lives in school. At a time when class size hovered around thirty children per teacher, what of the classroom?

> Immovable seats in orderly rows fix the sphere of activity of each child...Bells divide the day into periods. For the six-year olds the periods are short...and varied; in some they leave their seats, play games, and act out make-believe stories, although in 'recitation periods' all movement is prohibited...(for older students) there are 'study-periods' in

> which children learn 'lessons' from 'textbooks' prescribed by the state and 'recitation periods' in which they tell an adult teacher what the book has said: ...for nearly an hour a teacher asks questions and pupils answer...

According to the Lynds, more than a few traces remain of the nineteenth century drillmaster. There was much less overt evidence of the moral overseer on teaching in what the Lynds observed, although they saw the local "Y" teaching Bible classes in all elementary schools and giving a course for credit at the high school. Yet the secular morality of teaching for patriotism, support for group solidarity and local values were evident to the Lynds in student responses to surveys they administered. "Right" attitudes were sometimes taught explicitly, but, more often, implicitly.[67]

Ten years later when the Lynds returned to Muncie, there was much more evidence of the administrative progressives having reached top school positions than any real impact of Deweyan ideas upon classrooms. Education, the Lynds observed, had become "scientific with a vengeance." Administration had become a series of specialists. Planning, personnel, reorganization were the new magic words of schoolmen in the 1930s.[68]

Had changes occurred in classrooms? The Lynds do not describe classroom life as clearly as they did in their first study. They pointed to the loosening of the grip of lecture and recitation and more emphasis on thinking and development of individual students. How much of that went on is uncertain especially in the face of successive school budget cuts in the Depression which drove elementary class size over fifty and high school class size to over thirty-five.

Data dealing with classroom observation in the 20s and 30s is

hard to uncover and has yet to be synthesized. Inferences, however, can be drawn from the launching of the Eight Year Study. In the Depression decade when Progressive ideology dominated educators' thinking, the Commission in the Relation of School and College report on high schools indicted current (1931) practice on drilling students, ignoring the gifted, sticking to a lifeless curriculum and enduring ineffectual instruction. Similarly, Hollingshead's study of Elmstown's Youth suggests a school with a suffocating network of rules, a rigidly divided class structure reinforced by separate course of study for college-bound, business and other students. And, if the case studies artfully used by Willard Waller in his 1932 text, The Sociology of Teaching, reveal anything, it is that in rural and small town America, teaching had yet to be revolutionized by progressive pedogogy. The drillmaster, moral overseer, disciplinarian roles are all there beating loud and vibrantly as young teachers marched to the imperatives of the age-old process of teaching.[69]

While the evidence is spotty, by the 1930s, Cremin's verdict was that Muncie's conservative progressivism (which translated probably means minimal impact of Progressive pedagogy at the classroom level) "typifies the influence of progressive education on the pedagogical mainstream during the interbellum era." Having conceded that for every Winnetka there were probably many more schools that taught McGuffey well into the 1930s, he concluded that Progressivism left its unmistakable imprint upon the formal curriculum through expansion and reorganization; upon the elementary classroom instruction as "students and teachers alike tended to be more active, more mobile and more informal in their relationships with one another."[70]

While there is certainly evidence that such changes did penetrate certain kinds of schools, i.e. middle and upper-income suburban and private elementary schools, and more so at the lower than upper grades, the compelling case has yet to be made that impact upon classroom life was broader and deeper than what happened in Muncie, Indiana, in the 20s and 30s.

1960s - 1970s

Much has already been made of the surge of curriculum reform in the decade spanning the Eisenhower, Kennedy and Johnson administrations. Course content changed; new courses appeared, old ones disappeared. Textbooks got flashier, softer and more expensive as they embraced eye-catching graphics. New instructional materials produced by national curriculum groups showed up in classrooms. Innovative instructional tactics, inquiry-learning, etc. dominated professional journals, convention programs, and caused spasms of irritation from school boards and superintendents anxious to catch on to whatever bandwagon was hurtling by. The same question remains, however: was there impact upon the classroom?

Again, no comprehensive study has been done that synthesizes the data from observers and participants. The findings, then, drawn from only a sampling of sources will be, at best, preliminary.

In the early 1970s, university researcher, John Goodlad, and a team of veteran practitioners observed 150 primary grade classrooms, including kindergartners, in almost seventy different schools in metropolitan areas of thirteen states.[71]

The observers expected to find those highly-publicized innovations in content, classroom organization and instruction that sprang

from the reform surge of the 60s being implemented by teachers. Individualized instruction, team teaching, ungraded classrooms, inquiry learning, new materials and equipment, and a host of other changes spurred by outside and inside forces were objects of the search. What they found surprised them. "Many of the changes we have believed to be taking place in schooling," they concluded, "have not been getting into classrooms." After a decade and a half of widely-endorsed changes, innovations "were blunted on school and classroom door." Most schools, they found, were "marked by sameness regardless of location, student enrollment" or label given to them by administrators.[72]

Specifically, they found that the teacher dominated the classroom talk, questions and decision-making. After kindergarten, textbooks controlled the content and organization of the classroom. They were struck by the "dullness, abstractness and lack of variety in the learning fare." While audio-visual equipment was abundantly present, it "was used rarely during our visits." Kindergartens had a play-like environment with much children choice for movement and activity but that disappeared by the third grade. By that year what children studied and where they sat suggested "a passive, immobile pattern where instruction was "overwhelmingly group-oriented," rather than geared to individual differences. In short, Goodlad and his colleagues got one clear impression from the classrooms they visited: "order, neatness, quietness and immobility" prevailed.[73]

Journalist Charles Silberman spent four years studying schools in the late 1960s. He and a small staff visited scores of classrooms in different settings around the country. His conclusions mirror

Goodlad's although Silberman's prose is far more critical. His "items" from the classroom are devastating cases that document his charges of "mindlessness" in schools and tedium in classrooms. On math and science curriculum reforms, Silberman minces no words. If someone visited classes as he did, "he will discover that the great bulk of students' time is still devoted to detail, most of it trivial, much of it factually incorrect, and almost all of it unrelated to any concept, structure, cognitive strategy, or indeed anything other than the lesson plan." His conclusion after the great surge of curriculum and instructional reform between 1957-1967: "things are much the same as they had been twenty years ago, and in some respects not as good as they were forty years ago."[74]

Science curriculum reform focused upon individuals, small group instruction and inquiry methods used by the teacher. In a national sample of high school science faculty, most science teachers reported in 1971 that they used teacher-centered methods such as lecture, lecture and discussion and demonstrations.[75]

Teachers in the 1960s who wrote of their classroom experiences--many of whom became identified as "radical critics" were far harsher in their conclusions. When their angry judgments are separated from the factual description of what they and their colleagues did daily with children, the enormous difficulties that Herndon, Kohl, Kozol faced in their predominately poor, black classrooms revealed the overwhelming obstacles that had to be overcome if the existing pattern of instruction where teachers talk and students listen were to change.[76]

Angry high school students who wrote of their experiences bare the tedium, authoritarian, and mindless qualities of classroom instruction

and school courses of studies. Harshly condemnatory, such writings, stripped of rhetoric and anger, also suggest the enduring patterns of teacher dominance in classroom, reliance upon textbook and a chalkboard; little individualizing of learning, team-teaching, etc.[77]

Finally, there is an entire literature that has developed in the last two decades on careful classroom observation through specially trained staff. The notion of having someone sit in a class and record what both teachers and students say and do is not exactly novel but is nonetheless of recent vintage. Since what goes on in a classroom is incredibly complex--everything can't be recorded (even by a camera)--researchers have focused upon certain categories such as: classroom climate; non-verbal behavior, teacher-student communication; critical thinking, etc. As the literature has grown, observations have been collected from diverse settings. A growing arsenal of diverse instruments to record interplay between teacher and students has developed.

Just a sampling from that literature in the 1960s is striking in its similarity. Ned Flanders, one of the more active and prolific investigators, summed up the current situation (1970) by saying: "Teachers usually tell pupils what to do, how to do it, when to start, when to stop, and how well they did whatever they did." Other studies, both large-scale and small, involving elementary through high school, urban and suburban, reach virtually the same conclusions in classrooms being teacher-centered, group oriented, and adult dominated.[78]

Moreover, other observations show that the direction and level of questions is similar, that is, teachers do the asking for the most part, and what they ask requires low-level recall and comprehension

answers from students.[79]

None of this is to imply that student-centered classrooms or ones that realize the finest intentions of an earlier generation of pedagogical progressives do not exist. They do. They seem to be in minority and seldom show up in such studies.

As preliminary as all these findings are, at least one tentative statement can be made with a fair degree of confidence on curriculum reform penetrating classroom life: while substantive changes have occurred in what courses students take, the style and content of instructional materials and instructional ideology, there seems to have been stubborn continuity to what happened in classrooms over the last century that seems resistant to the intentions of those changes. This is not to crudely say that what happened in teachers' classrooms in 1870 is exactly the same as a century later; that is silly! It is to say that there seems to be a puzzling structural continuity between classrooms a century apart. It suggests a question: Why in an institution so vulnerable to social change do classrooms seem so invulnerable to decades of curriculum change? The answer may be found in an examination of the forces that determine stability in curriculum.

DETERMINANTS OF STABILITY* IN CURRICULA

Knowledge, of course, comes from many sources. In schooling, knowledge derives primarily from experience and research, with the latter having more prestige than the former. I raise this point because as a teacher and administrator for two decades, I have had to learn to rely upon knowledge I can extract from my experience while leavening that knowledge with available research.

Those two decades have put me in inner city and suburban classrooms. I've worked with all sorts of teachers, principals and superintendents. What I found are persistent regularities, stubborn continuities in curriculum that turn up repeatedly regardless of time and place. So had not the research on this paper led me to these conclusions, my experience would have still produced the puzzling question of the seeming invulnerability of classrooms to curriculum change.

There are, I feel, at least two main forces that help determine stability in curriculum. Since so much focus in educational literature has been on change, and so little has been written of forces that bring continuity to curriculum, I will try to show relationships, explain linkages and, wherever possible, show evidence of a cause-effect connection.

External Forces

Anyone familiar with American schools and the tradition of local control is often amazed at similarities in curriculum across the nation.

With over ten thousand school boards and superintendents, it is surprising to see courses of study, textbooks and what teachers do vary so little.

The primary determinant, in my judgment, for that similarity and also for stability in curriculum is the socializing functions of schooling.

Functions of Schooling

Invariably, the history of the modern school returns, like a revolving door, to Progressive beliefs in schooling. The core of Progressive ideology was that the school was the prime instrument in making wise adults out of children.

The family, especially those that were poor, immigrant and black, couldn't up to the complex job of preparing children for adulthood in an industrial society, reformers said. In a turn-of-the-century society where crime, poverty, class conflict and unassimilated foreigners faced fervent reformers, the school, in their view, should be a paragon of order, punctuality, good citizenship, morality, obedience and loyalty. To accomplish this, children had to be in school. The successful drive for compulsory attendance laws by reformers matured by the end of World War I into an elaborate machinery of truant officers, supervisors and clerks who counted heads and made sure children were in school.

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*The determinants that I searched for are those that are constant over time rather than ones that appear temporarily. The forces of stability, in my judgments, are more closely related to structures, organizations and basic processes of schooling than to passing events or shifting public moods.

Before, but especially since, the Progressive years, social, political and economic functions have driven much of what we recognize as modern compulsory schooling. John Dewey, Willard Waller, the Lynds and more recently, Robert Dreeben, Herb Gintis and Samuel Bowles, Alex Inkeles and many others have mapped out core functions inherent to compulsory schooling in preparing children for work, a stratified society, citizenship and, in Inkeles' phrase, "social competence." While writers differ significantly in explaining why these functions have arisen and persist, they generally agree that the school is a powerful agent in socializing children into adult roles.[80]

Teachers and administrators have absorbed the socializing functions into both their ideology and behavior. Casual observations of schools and classrooms, especially elementary, yield many instances of teachers and schools inculcating and reinforcing in a conscious manner regularity, proper work habits, patriotism and other adult expectations. Moral, political, and work socialization, embedded in class and school rules, students as helpers and rhetoric, is taken seriously.[81]

Parents and citizens expect children to be socialized by the schools. Gallup polls on what schools should do, flash floods of citizen anger at controversial texts, and fired-up parents at school board meetings angry about an untraditional teacher are only outward evidences of loyalty to the school's function of socialization; and, needless to add, potent reminders to the stewards of children about what the community expects.

How do these socializing functions help determine stability in the curriculum? At the simplest level, since the 1900s, many of these functions have been incorporated into courses of study, individual

courses and companion texts, e.g. vocational and technical education, civics, American History, etc. Much teacher activity, e.g. homework, classroom helpers, emphasis on punctuality, neatness, following rules, has been directed at preparing students for adult roles. By teachers and administrators integrating socialization for adult roles into their ideology and behavior they expect to build children into fine citizens, consumers and employees.[82]

These profoundly conservative functions are interwoven throughout the formal curriculum and what teachers do daily. Curricular innovations, particularly those that challenge socialization functions get short-shrift by practitioners. Try to drop American History or vocational education from the curriculum, for example, or try to stop teachers from teaching little boys and girls the values of honesty, cleanliness, neatness, punctuality and how little people should work, play and learn. Reformers have found such efforts to be dead end roads. Because such functions are so much a part of who teachers are, what they do, the organization of the school day and the formal curriculum, they account for much of the stubborn continuity in course content and instruction over the decades.

Beyond socializing functions there are other external forces. These act as instruments to help standardize curriculum across the country; these regional and national non-governmental agencies have exerted much informal clout with school systems over the last half-century. These instruments reinforce the socializing functions and help bring continuity to the curriculum.

Accrediting and Testing Agencies

Accreditation is viewed as an educational life or death issue. High school graduates, for example, from a non-accredited school find college admission officers most reluctant to even consider them. Formal curriculum requirements of the Southern Association of Schools and Colleges and the North Central Association, for instance, set local standards and are pursued religiously. While these agencies seldom levy sanctions, the threat of withdrawal is everpresent, reinforcing their minimun requirements. Drastic or unusual curriculum changes become most difficult to undertake in the face of these requirements.

National tests devised by the College Entrance Examiniation Board, standardized ability and achievement tests such as the Stanford, Iowa, etc. are commonly given across the nation. Over one million students, for example, take the College Boards and over 700 colleges require it. Local school districts gear portions of their curriculum to the tests; pressures easily build within school districts to standardize instructional and curricular practices in order to cut down on variations between schools.[83]

Since most of these tests and standard-setting groups originated in the early decades of the twentieth century, they have given a solid durability to particular courses of study, content and instruction over the years. Both accrediting associations and national tests have helped smooth out regional differences and brought a degree of uniformity to curriculum. It was precisely against the tyranny of college tests and entrance requirements that the Eight Year Study was launched, in the 30s, completed in the 40s and ultimatly forgotten by the 70s.

Textbooks

In the late 19th century, McGuffey readers were a common school experience. Nowadays, with a publishing industry national in scope, most school systems hold on to texts three to five years although with revisions, a popular text can last for a decade. In the elementary schools, basal readers and series that span the grades, for example, when adopted, give continuity to a reading program and prove most durable, i.e. resistant to change. In secondary schools, texts are plugged into particular course offerings, particularly at the high school, thus, creating interlocking pressure between books and formal courses for maintaining existing arrangements.[84]

State and Federal Laws and Agencies

New legislation affecting curriculum acts as a change agent upsetting existing situations. However, once enacted, state mandated courses, for instance, are virtually impossible to abolish. In effect, once in, always in. Tyll van Geel's paper also points out the growing centralization of state and federal power upon local districts through required testing programs and court decisions. Both combine to introduce initial changes but in time these changes often ossify and become resistant to modification.

These external forces give continuity to curriculum. However, they don't completely explain why little change has gotten by the classroom door. They offer only a partial understanding of why curricular durability occurs. To get a fuller explanation, we must examine internal forces that embrace certain school organizational traits, and teaching itself.

Internal Forces

Particular School Organizational Traits

Earlier it was pointed out that certain organizational characteristics may explain why schools were so vulnerable to change. Now, can I say that other organizational traits account for curricular stability? Yes.

The study of individual schools and school systems is a relatively recent field. Charles Bidwell's article over a decade ago summarized the research up to the early 1960s. Since then there has been a growing and exciting literature on schools as organizations, but much has yet to be learned. Theories multiply but knowledge remains scarce. While I will refer to studies and attempt to document assertions, this analysis is not intended to be a review of the literature. Thus, much of what follows while it will draw from existing studies will remain speculative.

School systems and schools as organizations are rational and irrational; bureaucratic and unbureaucratic; loosely structured and tightly structured; open to change and closed to change; vulnerable and invulnerable. These dualities often occur at the same time. We know, for example, of bureaucratic resistance to certain curriculum change in the very organization that receive with open arms curriculum proposals from foundations or influential schoolmen. Some of these organizational traits account for change. Some account for stability. For some traits, relationships have yet to be figured out. School organizations, then, are multifaceted, complicated and still unfathomed in certain areas. Only those key organizational traits that appear to

especially influence stability will be examined here.

Organizational Rationality

School systems are organized bureaucratically yet they are unlike corporate, military or industrial bureaucracies. Schools do have a division of labor, ranks of offices, rules and an elaborate record-keeping apparatus. They do emphasize lines of authority, equitable application of rules, uniformity in practice, and impartiality. Yet differences between bureaucracies exist as will be pointed out shortly.

Bureaucracy is rooted in rationality. Goals, objectives, planning, problem solving and evaluation are simply outward bureaucratic signs of an inward embrace of rationality. The notion of rationality and the organization's continuing hunt for it have had a strong impact upon stability in curriculum.

When curriculum is considered, bureaucracy and rationality have prevailed. Coordinating committees, periodic reviews of courses and texts, and curriculum planning are only a few attempts at rationalizing curriculum making. Where did this rational model of curriculum development come from?

Lawrence Cremin located the origin of rational curriculum making, in the late 19th century when schools themselves were being bureaucratized. W. T. Harris, according to Cremin, came up with the model. The child comes in contact with the course of study which is developed by educators who are concerned about what is important to study, where it should appear and how much should be digested. The teacher, through a text, teaches the details of that course of study and tests students

to assess whether the curriculum has been learned. "All the pieces were present for the game of curriculum making that would be played over the next half-century," Cremin says, "only the particular combinations and the players would change."[85]

He argues that Progressives and every subsequent generation of curriculum reformers down through the 1950s for all their reports, pronouncements, conferences and journal articles announcing curriculum revolutions accepted the rational model of curriculum making laid down by Harris; Cremin graciously and admirably admits he erred in previous writings by accepting reformers' pronouncements. He found that, regardless of which "pedagogical revolution" he analyzed "the Puritans remained in the curriculum."[86]

Herbert Kliebard located the origin and substance of the rational model, as Cremin did, in the quest for bureaucracy at the turn of the century. He updated the model by documenting its potency since 1950 in the impact of Ralph Tyler's writings which emphasized goals, objectives, strategies and evaluation. Tyler's work is the acme of rationality. "The production model of curriculum and instruction," Kliebard points out, "begins with a blueprint for how the student will turn out once we get through with him." This technical stance toward curriculum continues to dominate the field. Behavioral objectives, precise measurements, exact evaluation are important phrases among specialists today. All of these flow naturally from Harris through Tyler.[87]

The durability of such a rational model of curriculum development, encased within a bureaucratic framework, places a heavy weight of tradition upon efforts to change curriculum. Perhaps more impor-

tant, however, is that the technical approach to curriculum may have little to say about what happens in the classroom. There is much that is emotional, imprecise and unknown in classroom life that the rational model misses. If this is so then the long-time commitment to rational curriculum development may have strengthened continuity in curriculum because it was largely inapplicable for teachers.

Loose Coupling

To begin with school bureaucracies are not machines. Administrative directives to teachers on how instruction should occur are not instantly received, acted upon and the requested results produced. What's in a curriculum guide may or may not turn up in a classroom. What the teacher teaches may or may not be what the student learns. Each of these examples show a relationship that is coupled, i.e. attached yet only mildly responsive to one another all the while retaining a separate identity.[88]

Loosely-coupled systems, e.g. principal-teacher-curriculum-pupil, is an organizational trait that may explain both curricular change and stability. For example, earlier reference to dispersed decision-making in curriculum i.e. students, teachers, principals, etc., was a variant of a loosely-coupled decision-making system. Modest, gradual changes can penetrate schools slowly in a fragmented, disjointed fashion. Given a certain context, change could occur. Loosely-coupled systems, however, seem to nourish continuity more persistently than change. Let us examine one such loosely-coupled system; principal-teacher-curriculum-pupil.

First, loose-coupling means that pupils may not respond to

directives from principals or that teachers may not react to changes in the students' home life. In short, looseness permits some portions of the coupling to persist in spite of changes elsewhere. It suggests that when changes do occur the spread will be slow and its influence weak.

Second, in a loosely-coupled system, there is more room available for self-determination for principals and teachers. Autonomy, albeit uncertain and anxious, becomes possible. The fact that once a teacher closes his or her door no one but the children know what goes on behind it, given the infrequent inspection common to schools. With autonomy, the teacher can determine what to change or keep.[89]

These two main organizational traits give a persistent durability to curriculum over the past half-century.

Teachers and Teaching

The sprawling literature on this topic will not be reviewed here; much that has been written is desperate and previous attempts to synthesize the literature have appeared. I intend to pick those characteristics of teachers and teaching that, in my judgment, help explain continuity in curriculum. These characteristics may help unravel some answers to the puzzling questions concerning those enduring classroom similarities and why curriculum reformers keep stubbing their toes on the classroom door.

Consider two basic facts that teachers, unlike doctors, lawyers or plumbers, have had to cope with over the last half-century: they teach groups; and their clients are drafted. These two fundamental constraints have faced teachers for years. From such facts have

flowed a series of organizational responses; self-contained classrooms, deep concern for motivating children to learn, an equally deep concern for maintaining order, and a limited instructional technology of textbooks and recitation.[90]

Most classrooms today have one teacher, about thirty children in a crowded space and a course of study that has to be completed by a certain time. To get students, some of whom would prefer to be elsewhere, to work in the time and space available, requires the teacher to create activities that keep students attentive. The fear of chaos breaking out is strong and abiding among teachers. But to design activities and maintain order for groups of conscripted children in a small space, knowing full well that with thirty personalities and energetic bodies the unpredictable will occur is a tough set of demanding tasks.

The prime responses of teachers to these demands have been to keep children busy, talk a lot and keep them in groups. This is not necessarily the only response, nor the best or worst one but it is one that has been steadfast. Some evidence for this teacher response has been suggested for the late nineteenth and early twentieth centuries. The responses endure today as well.

In one study of elementary and secondary classrooms, there was a change in an "activity" between every five to eighteen seconds, depending upon how active the teacher was. Philip Jackson found that elementary teachers he observed had about 1000 daily exchanges with their students. Many of these exchanges lasted for only a few seconds--"May I use the pencil sharpener?"--while a few exchanges lasted for as

long as a minute without interruption. When teachers interact at this frantic pace, few have time to think. At the end of the day, most are pooped.[91]

The predominance of teacher talk has been mentioned already. When teachers instruct the entire class, Adams and Biddle found that almost half the time is spent in talking about subject matter with the teacher talking most of the time. Bellack and his associates found teachers speaking at least three times as much as their senior high students. Another way of making the same point in teacher talk is to find out, as Flanders did, that between first and twelfth grades, less than four percent of classroom talk were student questions and most of these questions were requests for clarifying directions or for repeating teacher questions.[92]

Teachers talk a lot, keep children and themselves busy and teach in groups. One study found that at least three-quarters of classroom student time was spent in the teacher instructing a group of more than half the class with the remainder working in small groups or independently. Classrooms consisting of several small groups and individuals were in the minority. In secondary schools, most instructional time is spent by teachers in front of groups.[93]

It should surprise no one that given the rigorous constraints of self-contained classrooms, the need to keep the attention of students and the demand that teachers cover prescribed portions of the curriculum, that teachers should respond as they have. Nor should it surprise anyone that the textbook and the question-answer form of instruction (be it recitation, discussion or variants of either) have

persisted over the last century as a durable instructional strategy. Both textbook and recitation are simple, cheap, accessible and versatile tools to handle complex situations, maintain order while meeting the demands of others and fulfilling the prime socializing functions of the schools. Few other instructional tools would meet those specifications.

One alternative to those strategies would require smaller groupings, easy movement between groups as childrens' interests shift and learning progresses and access to a diverse range of instructional materials. Some teachers work this way. It is exhausting and those that do often burn out like a light bulb after a few years.

Another alternative is to bring other adults into the classroom either as teachers or aides. Aside from the high cost, issues arising from questions as who would do what, who is the leader and related problems often surface. When team-teaching, an inexpensive variation of this alternative, has been pursued a number of these problems have emerged and remain to be resolved.

A third alternative is to move out of the self-contained classroom into open space. While that would solve the crunch for space in a classroom and create rich possibilities for small group and individual instruction, it would not-and has not--solved problems of student inattention and lack of interest. Therefore, maintaining order in larger space where distractions compete with teacher demands for attention remain a problem.[94]

All of these alternatives to the self-contained classroom where teacher talk and teacher-centered activities dominate have been tried. They will continue to attract numbers of teachers and administrators

who seek other ways of dealing with constraints already described. My point is not whether the self-contained classroom or any of the alternatives are "better" than one another; my point is only norms persist because of the inherent demands of a workplace, the classroom, and how students are required to learn curriculum. If we are ultimately to understand teacher beliefs, values and behavior, we must never lose sight of the constraints they must respond to.

The teacher's universe is that classroom. That is what counts to each teacher. The few psychic rewards teachers get are from instruction, erratic evidences of student learning and relating to children. Moreover, because, as Philip Jackson so nicely put it, "the path of educational progress could be more easily traced by a butterfly than a bullet," much uncertainty haunts teachers in assessing whether or not they are effective day to day or over the course of a year. Group test results are useful but less persuasive than former students returning to say how much they learned from that teacher.[95]

Teachers teach groups but try to reach individuals--a wrenching frustration given the constraints they work under. Teachers resent deeply interruptions or any chipping away of instructional time. Clerical tasks, non-instructional duties, sudden administrative demands drive them frantic. They feel strongly that the best change that could happen is to give them more time and resources to work with students uninterruptedly.

Because the teacher's universe is the classroom and because teachers treasure the freedom they have once they close their door to the outside world, they are also isolated from one another. That form of isolation reinforces conservative responses toward change efforts.

Group approaches to problem-solving and sustained cooperation are missing from teacher culture. Reluctance to share instructional ideas and problems beyond an immediate partner or team number is common; the drive by individual teachers to re-invent the wheel in their classrooms when constructing solutions to curricular problems is just as common. Moreover, the teacher's day is locked into working with children with little time, save lunch or perhaps a planning period, for adult exchange. When stress upon the classroom teacher as an autonomous decision-maker and the legal and moral authority for children are added then isolation is further encouraged and group instructional ventures are discouraged. From the self-contained classroom as teacher's universe flow intellectual isolation, painful uncertainty over solving problems and very little opportunity to analyze one's own behavior.[96]

Such teacher attitudes, values and behaviors are rooted in the highly individualistic and profoundly isolated nature of teaching which encourages, if anything, conservative responses to external demands for change. This is especially so when the externally-imposed changes ask teachers to alter how they go about their business. It is one thing for a teacher to use a textbook someone else picked since textbooks are familiar and can be selectively used. But it is entirely different if teachers are asked to team-teach, embrace inquiry methods, move into open space, or a dozen other innovations that require major shifts in their teaching behavior.

As the classroom helps to shape what teachers do, how they do it and what they value, we must also look at how teachers are recruited and socialized to see what impact these have on teacher attitudes and behavior. Dan Lortie's recent study on teaching as an occupation has

opened up rich areas of investigation. Based upon large samples of teachers, he found that who entered the classroom, and how they learned to teach developed among teachers a conservative, highly individual and present-oriented outlook toward the job.[97]

By recruiting young people who themselves are favorable to schools, i.e. they have usually identified with earlier teacher models, schools get recruits who are reluctant to challenge what happens in classrooms. In becoming a teacher, the individual plays a large part in making him or herself a teacher. Researchers call it socialization; veteran teachers call it sink-or-swim. This strong strain of individualism learned the hard way in becoming a teacher, is, of course, reinforced by the ideological and real autonomy of classroom teachers.[98]

Also learned quickly, according to Lortie, is that the present is more important than the future. Generally, teacher salary schedules load up increases in the first decade and a half. After that there are few substantial raises. Teachers call it "being buried." Moreover, a career in teaching means you teach until you retire--an ideal that fewer beginning teachers aspire to. When combined to the "endemic uncertainties" of teaching effectiveness, concern for the present--epitomized in daily lesson plans rather than monthly or annual plans--becomes understandable.[99]

Teacher recruitment, socialization and the demands of the self-contained classroom intersect to establish a configuration marked by conservative, individualistic, and present-minded impulses. When concentrated into the teacher's universe, a classroom, these impulses probably act as a screen for suggestions, demands and directives that come through the classroom door. This screen sorts out what can fit

into the configuration. What cannot fit is dropped. Teachers may or may not be conscious of screening these impulses that enter the classroom from principals, superintendents, or fervent reformers. If this is, indeed, the process, and my hunch is that it is, then no one should be surprised at how few dramatic changes in teaching behavior, instruction, course content andorganization do occur in classrooms.

From both internal and external forces stability rather than change in curriculum, seems much sharper and clearer to me as I look back over the last century. Social change and the mediating forces that translate those changes may batter at the school house door but after the gusts of change abate, the forces of stability reassert their potency. Too often the bubble of an educational revolution bursts leaving only a soapy residue. Classroom life and teacher behavior seems to have an enduring stability that has only marginally changed after all these gusts and bubbles.

CONCLUSIONS

This paper began with three questions. The first two asked:

- What forces changed curriculum?
- What forces maintained stability in curriculum?

The description and analysis covered schools in the last century and concluded that the primary determinant of curriculum change was social change, i.e. broad social, economic and political movements. Secondary determinants of change such as legislation, court decisions, influential groups (e.g. publishers, foundations), and persuasive individuals acted as mediators between the environment and schools. They softened, selected, modified and promoted different, less potent versions of social changes jolting the culture. Many of these groups lobbied social impulses into legislation. Many of these groups translated national hopes into practices. Many of these groups sold curriculum change.

Vulnerable to each wave of social change over the last century, schools were easily penetrated. What made schools involuntarily receptive to entry were a set of organizational traits (blurred goals, uncertain technology, etc.) that made schools vulnerable to every gust of change that blew against the classroom door. These primary and secondary determinants of change appeared formidable. To verify their impact, a brief analysis was made of whether or not these changes penetrated the various levels of curriculum, in particular, the classroom.

After reviewing the sparse secondary literature on classrooms in the late nineteenth and twentieth centuries before and after major school reform efforts, the tentative conclusion, was that only marginal changes, at best, occurred in how most teachers taught, what students did, and the nature of classroom interplay between the two. Such a conclusion led me to ask why in an organization historically vulnerable to change classrooms seemed invulnerable.[100] The question required an examination of those forces that determined stability in curriculum.

External and internal forces that brought continuity to curriculum were identified, The primary determinant that might explain puzzling continuities in curriculum was the socializing functions of schools. In addition, there were a number of external instruments such as accrediting agencies, national tests and legislation that reinforced school socialization and thereby strengthened continuity in curriculum.

There were also internal forces that stabilized curriculum. School organizational traits such as rationality and loosely coupled structures, teaching as an occupation and the classroom as workplace help explain those stubborn continuities and the seeming invulnerability of classrooms to change.

Having roughly mapped out the various forces that determined both change and stability in curriculum, the third question now presents itself:

- Which of those forces are amenable to planned change and became appropriate candidates for investment of federal research funds?

The state of knowledge about what actually happens in schools is, as I have said repeatedly, splintered. We probably know far more than is useful about some things, e.g. homogeneous and heterogeneous groups don't make much of a difference in student performance, and far less than we need to know in other things, e.g. how teachers determine their classroom effectiveness. Not only is the knowledge we have fragmented but what we think we know is too often mushy. "Word is leaking out," one writer said, "that a number of cherished curriculum beliefs are figments of the researchers' theoretical imagination."

The work of Jackson, Goodlad, Smith and others who have sat in schools and classrooms and carefully observed what goes on may have begun to seep into the mainstream thinking of researchers and awakened them to the simple fact that current ideology and practice are seldom married in the classroom; more often than not, they are legally separated.

All of this is preface to my first candidate for research: if federal policymakers wish to invest sensitively and carefully in research in curriculum they should have more maps before them that distinguish between patterns and transient happenings; that separate imperatives from impulses; that describe forces schools can and cannot influence. Such maps of change and stability in school organization, instructional technology, teacher use of instructional materials, classroom management techniques, culture of teachers in schools, etc. should be done historically. Policymakers would then have before them analyses which are sensitive to issues as they have developed over time. What appears as a possible pattern gains considerable

weight if it is durable rather than temporary. The prime reason for such maps is to determine what parts of the educational landscape are susceptible to planned change. After all, such maps may lead policymakers to the outrageous conclusion that very little can be tinkered with and the narrow areas that can be influenced, should receive most of the available funds. Too often, policymakers have embraced the logic of one researcher who said: "If researchers and practitioners cannot exercise control over a force and regulate it in the interest of better curriculum, then why bother to identify it as a force?"[101]

Why bother? Because the more you understand about what can or cannot be done, the better able you are to select judiciously what should be done. J. M. Stephens made the same point in a different way. He pointed out the common metaphor for schooling is the factory. This metaphor nourishes rational decisionmaking and makes virtually every facet of schools a candidate for planned change. Switch metaphors to, say, farming, he says, and schooling looks differently. In agriculture you start with an ancient process and build your "efforts around what seeds, plants and insects are likely to do anyway." By understanding the durability and limits to the process, you can improve production, he argues. But, he says, you don't ignore these "older organic forces" you have little control over; you work through them."[102]

This, then, is an argument for conceptual and historical maps of schools and classrooms, particularly organizational structures and processes. We need to know far more clearly what organic process we need to work through. These targets are ones within the influence of policymakers and where large knowledge gaps exist. It is my first

candidate for investment of research funds.

My second candidate flows directly from my analysis. I have tried to show that:

- Schools are vulnerable to social change.
- Social change, softened by mediating forces, turns into governance, organizational and curricular changes.
- Curriculum change impacts far more upon theory, courses of study and content rather than upon instruction and classroom life.
- Basic processes at work in classrooms, including teacher instruction and student responses, have a potent stability that resists intrusion, especially if the teacher is uncertain or skeptical of the change.

These conclusions, and I still label them tentative, drive me back unrelentingly to the simple, but I hope not simpleminded, observation that we need to find out far more reliable information about, for example, how teachers teach, deal with children, relate to time and space, cope with unpredictability and uncertainty, and seek satisfaction within school and classroom.

The teacher, and I wince that in 1976 it still has to be said, is the source of both curricular change and stability. If anything more constructive and positive is to happen with children and schools, policymakers must have far more dependable knowledge about what goes on in schools, and classrooms. There is a small body of research that points to the limited nature of change that can be introduced into classrooms and the pivotal influence of the teacher in determining the pace and extent of that change. My experience and that of thousands

of other teachers taught me that years ago. Perhaps, research and policymaking can catch up with folk wisdom.

I have no long list of recommended candidates. Just two. There is no need for a long research agenda. Policymakers need a short, simple one that drives people into schools and classrooms to see and learn what are the limits of stability and change. Now, they don't know. Until they do, solutions and answers will wander aimlessly in search for problems and questions.

FOOTNOTES

[1]David Tyack, The One Best System (Cambridge, Mass.: Harvard University Press, 1974), pp. 28-77; Michael B. Katz, Class, Bureaucracy, and Schools (New York: Praeger Publishers, 1971), pp. 56-104; Joseph Cronin, The Control of Urban Schools: Perspective on the Power of Educational Reformers (New York: Free Press, 1973); Lawrence A. Cremin, The Transformation of the School (New York: Random House, 1961).

[2]National Institute of Education, "Curriculum Development Issues: Guides for Public Discussion (Draft)" (Washington: Health, Education, and Welfare, 1976), p. 3.

[3]Lawrence Cremin, "Curriculum-Making in the United States", Teachers College Record vol. 73 (December 1971), pp. 207-220; Raymond E. Callahan, Education and the Cult of Efficiency (Chicago: University of Chicago Press, 1962), pp. 79-94, 142.

[4]One study, however, makes this very point. See C. A. Bowers, The Progressive Educator and the Depression: The Radical Years (New York: Random House, 1969).

[5]Tyack, p. 39.

[6]See John K. Folger and Charles B. Nam, Education of the American Population (Washington: GPO, 1967); W. Vance Grant and C. George Lind, Digest of Educational Statistics, 1974 Edition (Washington: GPO, 1975).

[7]See Patricia A. Graham, Community and Class in American Education, 1865-1918 (New York: John Wiley, 1974); Tyack, One Best System.

[8]Cremin, Transformation of the School, pp. VIII, IX; Sol Cohen, Progressives and Urban School Reform (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 78.

[9]Cohen, p. 64.

[10]Cremin, Transformation of the School, pp. 58-89.

[11]John D. McNeil, "Forces Influencing Curriculum", Review of Education Research, vol. 39, (June, 1969), p. 299.

[12] Ibid.

[13] Paul Berman et al, Federal Programs Supporting Educational Change, vol. V: Executive Summary (Santa Monica, Calif.: Rand Corporation, 1975), pp. 8-9.

[14] David Tyack's, Lawrence Cremin's, Raymond Callahan's and Michael Katz's work has already been cited. In addition, see Joel Spring, Education and the Rise of the Corporate State (Boston: Beacon Press, 1972); Edward A. Krug, The Shaping of the American High School (New York: Harper and Row, 1964).

[15] Graham, p. 37.

[16] Callahan, p. 75, 81; Herbert Kliebard, "Bureaucracy and Curriculum Theory", in William Pinar (ed.), Curriculum Theorizing (Berkeley, Calif.: McCutchan Publishing Corporation, 1975), pp. 55-58.

[17] Cremin, Transformation of the School, pp. 32, 36, 38, 50, 51.

[18] See Tyack, pp. 126-181; Krug, chap. 11; Katz, pp. 113-125.

[19] Tyack, pp. 191, 194.

[20] Ibid., p. 191.

[21] Kliebard, p. 62.

[22] Cremin, pp. 127-178; Katz, pp. 113-125; Cohen, pp. 63-100.

[23] See Charles Silberman, Crisis in the Classroom (New York: Random House, 1971), pp. 158-206; Hillel Black, The American School Book (New York: William Morrow and Company, 1967), pp. 162-185; John I Goodlad et al, The Changing School Curriculum (New York: Fund for the Advancement of Education, 1966); John G. Wirt and Suzanne K. Quick, "Curriculum Movement of the 1960's" (Rand, Forthcoming).

[24] Silberman, p. 169.

[25] Black, pp. 162-185.

[26] Silberman, p. 171.

[27] Michael W. Kirst and Frederick M. Wirt, The Political Web of American Schools (Boston: Little, Brown and Company, 1972), p. 213; Black, p. 167.

[28] Kirst and Wirt, p. 210.

[29] Sidney Tiedt, "Historical Development of Federal Aid Programs",

in U.S. Senate, What Should be the Policy Toward Financing Elementary and Secondary Education in the United States? (Washington: GPO, 1972), pp. 123-124, 129-130.

[30]Berman, et al, p. 12.

[31]Kirst and Wirt, p. 213; The Wirt and Quick forthcoming study for Rand examines in depth the impact of federal involvement in subsidizing curriculum reform.

[32]Hobson v. Hansen, 269 F. Supp. 401 (D.D.C. 1967); Gary Orfield, "How to Make Desegregation Work: The Adaption of Schools to Their Newly-Integrated Student Bodies", Law and Contemporary Problems, Part II, vol. 39, (spring 1975), pp. 314-340; Neil Sullivan, Now is the Time: Integration in the Berkeley Schools (Bloomington, Indiana: University of Indiana Press, 1969); Raymond W. Mack, Our Children's Burden (New York: Random House, 1968).

[33]Hobson v. Hansen (1967); Orfield, p. 325.

[34]Orfield, p. 69; Black, pp. 106-126.

[35]See Michael Kirst and Decker Walker, "An Analysis of Curriculum Policy Making", Review of Educational Research, vol. 41 (December 1971), pp. 479-508; D. McNeil, "Forces Influencing Curriculum"; Gordon MacKenzie, "Curricular Change: Participants, Power, and Processes", in Matthew Miles (ed.), Innovation in Education (New York: Teachers College Press, 1964).

[36]Black, pp. 3, 120; Kirst, p. 212; see John Goodlad et al, Looking Behind the Classroom Door (Worthington, Ohio: Charles A. Jones Publishing Company, 1974); Eric Bredy, "The Trouble with Textbooks", Teachers College Record, vol. 77 (September 1975), pp. 13-34; Wirt and Quick, chap. II.

[37]Kirst, p. 214; Joseph C. Kiger, "Foundation Support of Educational Innovation by Learned Societies, Councils, and Institutes", in Miles, Innovation in Education; A Foundation Goes to School (New York: Ford Foundation, 1972), pp. 8, 42-43.

[38]Kiger, pp. 539-554.

[39]Cremin, pp. 253-256.

[40]Ibid., pp. 237-239.

[41]See Cremin, "Curriculum Making in the United States", and Transformation of School, pp. 115-126, 234-239; Herbert Kliebard, "Reappraisal: The Tyler Rationale" in William Pinar (ed.), Curriculum Theorizing (Berkley, Calif.: McCutchan Publishing Company, 1975).

[42]Lawrence Cremin, The Genius of American Education (New York: Random House, 1965), p. 11.

[43]See Raymond Callahan, Education and the Cult of Efficiency; Neal Gross, Who Runs Our Schools? (New York: John Wiley, 1958); Herbert Gans, The Levittowners: How People Live and Politic in Suburbia (New York: Random House, 1967), pp. 86-103; Arthur J. Vidich and Joseph Bensman, Small Town in Mass Society (Princeton, N. J.: Princeton University Press, 1958), pp. 171-197.

[44]See Colin Greer, The Great School Legend: A Revisionist Interpretation of American Public Education (New York: Basic Books, 1972); David Cohen and Marvin Lazerson, "Education and the Corporate Order", paper presented to meeting of the American Educational Research Association, 1970; Joel Spring, Education and the Rise of the Corporate State (Boston: Beacon Press, 1972).

[45]See Kirst and Wirt; David Rogers, 110 Livingston Street (New York: Random House, 1968); Marilyn Gittell and Edward Hollander, Six Urban School Districts (New York: Praeger, 1968); Robert L. Crain, The Politics of School Desegregation (Chicago: Aldine Publishing Company, 1968); Laurence Iannaccone, Politics in Education (New York: Center for Applied Research in Education, 1967

[46]Charles Bidwell, "The School as a Formal Organization", in James March (ed.) The Handbook of Organizations (New York: Rand McNally, 1965); James March, and Michael Cohen, Leadership and Ambiguity (New York: McGraw-Hill, 1974); Sloan Wayland, "Structural Features of American Education as Basic Factors in Innovation", in Miles, Innovation; Sam Sieber, "Organizational Influences on Innovative Rules", in Terry L. Eidell and Joanne M. Kitchel, Knowledge Production and Utilization in Educational Administration (Portland, Oregon: Center for the Advanced Study of Educational Administration, 1968; Seymour B. Sarajon, The Culture of the School and the Problem of Change (Boston: Allyn-Bacon, Inc., 1971).

[47]"Statement of the Theory of Education in the United States of America as Approved by Leading Educators", in David Tyack, Turning Points on American Educational History (Waltham, Mass.: Blaisdell, 1967), pp. 324-326.

[48]U.S. Bureau of Education", Cardinal Principles of Secondary Education", Bulletin No. 35 (U.S. Government, 1918), p. 12, Passim.

[49]Quoted in Roald F. Campbell, "What Peculiarities in Educational Administration Make it a Special Case," In Andrew Halpán Ced.) Administrative Theory in Education (Chicago: Midwest Administration Center, 1958), p. 17.

[50]Sidney Tickton (ed.), To Improve Learning (R.R. Bowker, 1970), vol. 1, pp. 68-69.

[51]Dan Lortie, School Teacher (Chicago: University of Chicago Press, 1975), p. 143.

[52]See Marilyn Gittell, Participants and Participation (New York: Center for Urban Education, 1967); Larry Cuban, "Hobson v. Hanson: A Study in Organizational Response", Educational Administration Quarterly, vol. II, (spring 1975) pp. 15-37.

[53]Neal Gross, Who Runs our Schools (New York: John Wiley, 1958); Robert Dahl, Who Governs (New Haven, Conn.: Yale University Press, 1961).

[54]See Richard Carlson, "School Superintendents and the Adoption of Modern Math: A Social Structure Profile", in Miles, Innovation; Seiber, p. 121;

[55]These three levels of change are drawn from the Rand study authored by Berman et al.

[56]See Barbara Joan Finkelstein, "Governing the Young: Teacher Behavior in American Primary Schools, 1820-1880; A Documentary History". (Unpub. Ed. D. Diss., Teachers College, Columbia University, 1970; Pedagogy as Intrusion: Teaching Values in Popular Primary Schools in Nineteenth Century America", History of Childhood Quarterly, (Winter, 1975); The "Moral Dimensions of Pedagogy," American Studies, (Fall, 1974).

[57]A recent synthesis of instruments used in observing classroom interaction is in Barak Rosenshine and Norma Furst , "The use of Direct Observation to Study Teaching", in Robert M. W. Travers (ed.) Second Handbook of Research on Teaching (Chicago: Rand McNally Co., 1973).

[58]In Tyack's, The One Best System, a rich collection is displayed; also in the Museum of the city of New York's Jacob Riis collection and in American Education. June, 1974 and August-September, 1975 issues (Washington, D.C.: U.S. Office of Education).

[59]Finkelstein, "Moral Dimensions of Pedagogy", p. 81; Finkelstein, "Governing the Young", p. 316, 35.

[60]Finkelstein, "Governing the Young", chap. IV; Finkelstein, "Moral Dimensions of Pedagogy", p. 84.

[61]Ruth Elson, Guardians of Tradition (Lincoln, Nebraska: University of Nebraska Press, 1964), chaps. 3, 5, 6, and 9.

[62]David Tyack, "Bureaucracy and the Common School: The Example of Portland, Oregon, 1851-1913 "American Quarterly" (Fall 1967) p. 4

[63]Joseph Rice, The Public School System of the United States (New York: Arno Press, 1969), p. 98.

[64]Cremin, Transformation of the School, p. 291.

[65] John Dewey and Evelyn Dewey, Schools of Tomorrow (New York: E.P. Dutton, 1962)

[66] Cremin, Transformation of the School, p. 160.

[67] Robert S. Lynd and Helen M. Lynd, Middletown (New York: Harcourt, Brace and Co., 1924) pp. 188, 200-202.

[68] Robert S. Lynd and Helen M. Lynd, Middletown in Transition (New York: Harcourt, Brace and Co., 1937), p. 205.

[69] August B. Hollingshead, Elmtown's Youth (New York: John Wiley, 1949), ch.p. 8; Willard Waller, The Sociology of Teaching (New York: John Wiley, 1965), chaps. 18 and 19.

[70] Cremin, Transformation of the School, p. 305.

[71] Goodlad, Looking Behind the Classroom Door, p. 33.

[72] Ibid., p. 97.

[73] Ibid., pp. 63, 80, 82, 91.

[74] Silberman, pp. 172, 159.

[75] "A Survey of Science Teaching in Public Schools of the United States", Center for Science and Math Education, Ohio State University, 1971) Cited in Wirt and Quick Forthcoming Rand Study.

[76] A sampling of that literature: Jonathan Kozol, Death at An Early Age (Boston: Houghton-Mifflin, 1967); Herbert Kohl, 36 Children (New York: New American library, 1967); James Herndon, The Way It Spozed to Be, (New York: Simon and Schuster, 1968).

[77] See John Birmingham (ed.) Our Time is Now (New York: Praeger, 1970); Larry Cuban (ed.), Youth as a Minority (Washington, D.C.: National Council for the Social Studies, 1972).

[78] Ned Flanders, Analyzing Teacher Behavior (Reading, Mass.: Addison-Wesley Co. 1970), p. 14; also see Thomas L. Good and Jere E. Brophy, Looking in Classrooms (New York: Harper and Row, 1973); Philip Jackson, Life in Classrooms (New York: Holt, Rinehart and Winston, 1968); Louis Smith and William Geoffrey, The Complexities of an Urban Classroom (New York: Holt, Rinehart and Winston, 1968); Arno Bellack, et al, The Language of the Classroom (New York: Teachers College Press, 1966).

[79] Sarason, p. 74; Flanders, pp. 13-14.

[80] See Robert Dreeben, On What is Learned in Schools (Reading, Mass.: Addison-Wesley, 1968); Herbert Gintis, "Toward a Political Economy of Education", Harvard Education Review, vol. 42, (Feb. 1972);

Samuel Bowles, "Unequal Education and the Reproduction of the Social Division of Labor" in Martin Larndy (ed.), Schooling in a Corporate Society, (New York: David McKay Co., 1972); Alex Inkeles, "The Socialization of Competence", Harvard Educational Review, vol. 36, (summer, 1966).

[81]See Lortie, chap. 5; Finkelstein, "Pedagogy as Intrusion;" Waller, part four, "The Teacher-Pupil Relationship", Jackson, Life in Classrooms.

[82]Elson, Guardians of Tradition; Black, The American School Book.

[83]Wayland, pp. 601-602; Kirst, pp. 208-209.

[84]Wirt and Quick forthcoming Rand Study, Chapter on "Curriculum Policy System"; Kirst, p. 212.

[85]Cremin, "Curriculum Making in the United States", p. 210.

[86]Ibid., p. 212.

[87]Kliebard, "Reappraisal: The Tyler Rationale", p. 81.

[88]Karl E. Weick, "Educational Organizations as Loosely-Coupled Systems", Administrative Science Quarterly, vol. 21 (March 1976), pp.3-4.

[89]Ibid., pp. 7-8.

[90]The following section is drawn from Lortie, Jackson, Smith and Geoffrey, Robert Dreeben, "The School as a Workplace", In Travers, Second Handbook of Research on Teaching, and my two decades of classroom teaching and observations of other teachers.

[91]R. S. Adams and B. J. Biddle, Realities of Teaching cited in Dreeben, "The School as a Workplace"; Philip Jackson, "The Way Teaching Is", The Way Teaching Is (Washington, D. C.: National Education Association, 1966), p. 14.

[92]Cited in Dreeben, "The School as a Workplace", p. 465; Flanders, p. 14.

[93]Cited in Dreeben, "The School as a Workplace", p. 465.

[94]Ibid., pp. 466-467.

[95]Jackson, "The Way Teaching Is", p. 4.

[96]See Lortie, chaps. 6 and 7; Larry Cuban, "The Death of Intellect; or How to Change Teachers Into Cretins Without Really Trying", In Harry Passow, (ed.) Opening Opportunities for Disadvantaged Learners (New York: Teaching College Press, 1972).

[97] Lortie, p. 106.

[98] Ibid., pp. 25-54.

[99] Ibid., pp. 83-86.

[100] One unasked question was whether curriculum changes produced any achievement differences in student performance. The logic of my argument would suggest none, i.e. if only marginal changes, at best, occurred in most classrooms, student performance would probably have been largely unaffected. The evidence seems to support the logic. While the Eight Year Study of differences in students have been reported on extensively, the results remain ambiguous, suggesting, at best, that the experimental curricula didn't incur any academic loss among students. J. M. Stephens who synthesized hundreds of studies, including the research on the Eight Year Study, concluded that constancy in student performance is the hallmark of those experiments touching upon curricular changes. [J. M. Stephens, The Process of Schooling (New York: Holt, Rinehart, 1967), pp. 77,80-82.] A more recent review of twenty-three studies of post-Sputnik curricula's impact upon student test performance concluded that in comparing "innovative" with "traditional" curricula no consistent advantage turned up for students who experienced "innovative" materials. Students using different curricula tended to show up with different patterns of test performance and "these patterns generally reflected differences in content inclusion and emphasis in the curricula." [Decker Walker and Jon Schaffarzick, Comparing Curriculua", Review of Educational Research, Winter, 1974, p. 83.] If curriculum changes insofar as student performance are examined, the modest results seem to reinforce the stability of what happens in classrooms.

[101] Richard E. Schutz, "Methodological Issues in Curriculum Research," Review of Educational Research, (June, 1969), p. 359.

[102] Stephens, p. 11.